

***INDIA — CERTAIN MEASURES RELATING TO SOLAR CELLS  
AND SOLAR MODULES***

**(DS456)**

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## I. INTRODUCTION

1. The stated aim of India's Jawaharlal Nehru National Solar Mission ("JNNSM Programme") is to promote the use of solar energy. This is a laudable goal that the United States and many other WTO Members share, and it is not this environmental objective that the United States challenges in this dispute.

2. Rather, the United States challenges elements of India's program that discriminate against imported products. These elements are contrary to WTO rules, unnecessary for the program to fulfill its aim, and actually undermine them.

3. In particular, under the JNNSM Programme, India enters into power purchase agreements for electricity from solar power developers ("SPDs")<sup>1</sup>. To enter into these contracts and receive other incentives, however, SPDs are required to use solar cells and modules made in India ("the domestic content requirement").

4. India's domestic content requirements accord less favorable treatment to imported solar cells and modules than to domestic solar cells and modules. Imported products are prevented from competing for a role in the program under the same conditions as domestically-produced cells and modules.

5. As such, and as the United States will describe in further detail in this submission, the JNNSM Programme measures, including individually executed contracts for solar power projects, are inconsistent with India's obligations under Article III:4 of the *General Agreement on Tariffs and Trade 1994* ("GATT 1994") and Article 2.1 of the *Agreement on Trade-Related Investment Measures* ("TRIMs Agreement").

6. And not only are the JNNSM Programme measures inconsistent with these national treatment obligations. Regrettably, they may make it more difficult for India to achieve its solar power generation goals.

7. Indian producers and their representatives have explained how these design elements undermine the broader environmental goals of the program. For example, the National Solar Energy Federation of India ("NSEFI"), an industry association comprised of Indian solar power developers, has complained that "manufacturers' price rises have made it 'impossible' for developers to execute domestic content requirement projects, and the movements are a 'serious threat to the solar mission.'"<sup>2</sup> Another producer stated that India's "policy can result in an assured increase in costs making solar tariffs unaffordable" and that "technology used by

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<sup>1</sup> "Solar Power Developers", abbreviated as "SPDs" in JNNSM Programme documents, (occasionally called "renewable energy service providing companies," or "RESCOs") are private businesses, organizations, and individuals which install, own, and operate individual solar projects. *FAQ: Implementation of Off-Grid Solar PV Project Under JNNSM*, MNRE, undated, at 1 (US-9).

<sup>2</sup> *PV Tech*, "Solar Cell Price Rises 'Putting Indian Domestic Content Projects At Risk'" (March 28, 2014) (US-1).

indigenous manufacturers is not the most optimum or latest.”<sup>3</sup> Thus, holding India to its WTO obligations may also contribute to achieving a better environmental outcome for India’s laudable solar energy goals.

## II. FACTUAL BACKGROUND

### A. The JNNSM Programme

#### 1. Overview of the JNNSM Programme

8. India established the JNNSM Programme in January 2010 with the stated goal “of establishing India as a global leader in solar energy, by creating the policy conditions for its diffusion across the country as quickly as possible.”<sup>4</sup> The JNNSM Programme attempts to achieve this aim by agreeing to purchase electricity from SPDs at long-term contractually guaranteed rates and providing other financial benefits to SPDs.

9. Through the JNNSM Programme, India aims to generate 20,000 megawatts (“MW”) of grid-connected solar power capacity by 2022. To reach this goal, India is implementing the JNNSM Programme in three separate “phases.”<sup>5</sup>

10. Phase I had the goal of generating 1000 MW of solar power capacity by 2013.<sup>6</sup> Phase I was divided into two batches: Batch 1 (FY 2010-2011) and Batch 2 (FY 2011-2012). While the Phase I goal was 1000 MW of solar power capacity, only 568 MW of solar photovoltaic (“PV”) power capacity had actually been commissioned under Phase I as of October 2014.<sup>7</sup>

11. Phase II, which is currently ongoing, began in October 2013 and is scheduled to close in 2019. To date, India has rolled out one batch under Phase II. During Phase II (Batch 1), India aims to generate 750 MW of solar power capacity.

12. In addition, on October 14, 2014, India issued draft guidelines for a planned Phase II (Batch 2), with a goal of generating 15,000 MW of solar power capacity between 2014 and

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<sup>3</sup> *Time of India*, “Renewable Energy Ministry Opposes Anti-dumping Duties on Imported Solar Modules” (May 7, 2014) (US-2).

<sup>4</sup> *Phase II Policy Document, Jawaharlal Nehru National Solar Mission*, Ministry of New and Renewable Energy (“MNRE”) (December 2012), Section 1.2 (US-3).

<sup>5</sup> *See Resolution, Jawaharlal Nehru National Solar Mission*, MNRE (January 11, 2010) (US-4).

<sup>6</sup> *Guidelines for Selection of New Grid Connected Solar Power Projects*, MNRE (July 2010), p. 2 (US-5); *Guidelines for Selection of New Grid Connected Solar Power Projects, Batch II*, MNRE (August 2011), p. 2 (US-6); *Guidelines for Implementation of Scheme for Setting up of 750 MW Grid-connected Solar PV Power Projects under Batch-I, JNNSM*, MNRE (October 2013), p. 4 (US-7).

<sup>7</sup> *Draft Guidelines for Selection of 3000 MW Grid-Connected Solar PV Power Projects under Batch-II Tranche-I State Specific Scheme*, MNRE (October 2014), p. 3 (US-8).

2019.<sup>8</sup> According to the draft guidelines, India will implement Phase II (Batch 2) in three separate tranches: Tranche I (from 2014-15 to 2016-17), Tranche II (2015-16 to 2017-18), and Tranche III (2016-17 to 2018-19). India aims to add 3000, 5000, and 7000 MW of solar power capacity, respectively, over the course of these three tranches.<sup>9</sup> The United States does not know when plans for Phase II (Batch 2) will be finalized, but notes India scheduled a hearing for “consultation with Solar Power Developers and other Stakeholders” for October 17, 2014, and set an October 30, 2014, deadline for receipt of stakeholder comments on the draft guidelines.<sup>10</sup>

13. The JNNSM Programme phases to date are summarized in the table below.

JNNSM Programme Phases to Date		
Phase	Term	Solar Power Generation Target
Phase I (Batch 1)	FY 2010 – 2011	1000 MW
Phase I (Batch 2)	FY 2011 – 2012	
Phase II (Batch 1)	FY 2014 – FY 2017	750 MW
Phase II (Batch 2) Tranche I	FY 2015/16 – 2018/19	3000 MW
Phase II (Batch 2) Tranche II	FY 2015/16 – 2017/18	5000 MW
Phase II (Batch 2) Tranche III	FY 2016/17 – 2018/19	7000 MW

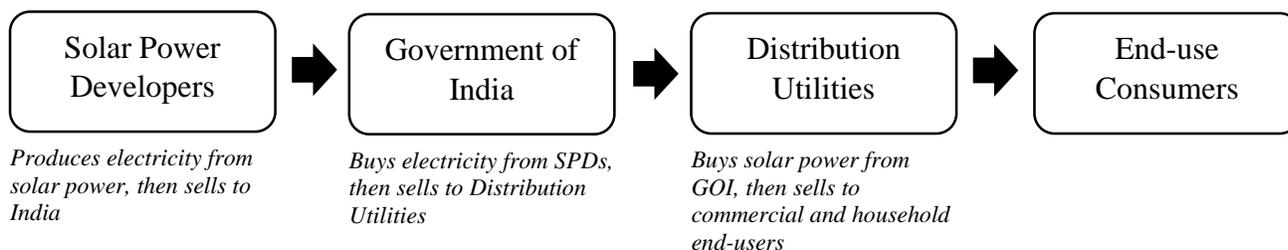
<sup>8</sup> *Id.*

<sup>9</sup> The draft guidelines document issued in October 2014, however, pertains only to the first tranche, *i.e.*, Tranche I, of Phase II (Batch 2).

<sup>10</sup> *Draft Guidelines for Selection of 3000 MW Grid-connected Solar PV Power Projects under Batch-II Tranche-I State Specific Scheme*, cover letter dated October 14, 2014 (US-8).

14. India aims to reach the 20,000 MW target by the end of Phase III, which is scheduled to run between 2017 and 2022.<sup>11</sup> India has not issued any draft guidelines or detailed plans for Phase III.

15. Under each Phase of the JNNSM Programme, India solicits and evaluates bid proposals from SPDs to set up “solar power generation projects.” India selects certain developers and then enters into Power Purchase Agreements (“PPAs”) with those developers. Under a PPA, India agrees to purchase the electricity generated from the solar power project of a particular SPD at contractually-guaranteed long-term rates.<sup>12</sup> India then sells the electricity to downstream “distribution utilities”<sup>13</sup> for resale to commercial and household consumers.<sup>14</sup> The basic flow of electricity generated under the JNNSM Programme is as follows:



16. In addition to meeting various financial and technical conditions, SPDs must agree to satisfy certain domestic content requirements with respect to the solar cells and modules used to generate solar power in projects under the JNNSM Programme.

17. The domestic content requirements of the JNNSM Programme as set out in Phase I (Batch 1), Phase I (Batch 2), and Phase II (Batch 1) are explained below in Section II.A.3, below.

## 2. Key JNNSM Programme Administrative Entities

18. The Ministry of New and Renewable Energy (“MNRE”) is responsible for administering the JNNSM Programme. MNRE is the lead Indian central government ministry for “all matters

<sup>11</sup> See Resolution, JNNSM (US-4).

<sup>12</sup> See, e.g., Draft Standard Power Sale Agreement for Purchase of Power on Long Term Basis of \_\_\_ MW Solar Power on Long Term Basis, Solar Energy Corporation of India (“SECI”) (July 23, 2014) (US-10).

<sup>13</sup> “Distribution Utilities,” also termed “Discoms” are entities that sell electricity directly to commercial and retail end users in India. There are currently 61 distribution utilities in India. See *State Electricity Utilities*, Central Electricity Regulatory Commission (US-11).

<sup>14</sup> See, e.g., Request for Selection (“RfS”) Document for 750 MW Grid Connected Solar Photo Voltaic Projects under JNNSM Phase II Batch-I, SECI (October 2013), Section 3.1.3. (US-12) (“In the Phase 1 of the Mission, 950 MW solar power projects were selected in two batches (batch-I during 2010-11 and batch-II during 2011-12) through a process of reverse bidding. NTPC Vidyut Vyapar Nigam Limited (NVVN) was appointed as the nodal authority for purchase of power from developers and further sale to distribution utilities/ Discoms...”).

relating to renewable energy.” MNRE’s stated mission is to “develop and deploy new and renewable energy for supplementing the energy requirements of the country.”<sup>15</sup>

19. NTPC Vidyut Vyapar Nigam Limited (“NVVN”) was responsible for implementing the solar power project selection process under Phase I. NVVN also serves as the formal counterparty to SPDs in the PPAs (*i.e.*, the contracts) executed under Phase I. NVVN is a wholly owned subsidiary of the state-owned National Thermal Power Corporation (“NTPC”).<sup>16</sup> India currently holds a 74.96 percent stake in NTPC.<sup>17</sup> NTPC is “India’s largest power company” with a stated mission to “accelerate power development in India.”<sup>18</sup>

20. For Phase II (Batch I), MNRE selected the Solar Energy Corporation of India (“SECI”) to carry out the solar power project selection process and serve as the counterparty to SPDs in PPAs executed under Phase II (Batch I). SECI was incorporated on September 20, 2011 as a “Government of India enterprise”<sup>19</sup> under Section 25 of the 1965 Companies Act of India. The President of India owned 100 percent of the shares of SECI as of March 31, 2013.<sup>20</sup> SECI, which is “under the administrative control of the Ministry of New and Renewable Energy” acts as the “implementing and facilitating arm of the Jawaharlal Nehru National Solar Mission (JNNSM).”<sup>21</sup> SECI’s stated main objectives are:

[T]o own, operate and manage, both grid connected and off grid power stations, and promote research and development, select suitable sites for solar power stations and ancillary facilities, exchange, distribute and sell power in accordance with the policies and objectives lay {sic} down by the Central Government under the Jawaharlal Nehru National Solar Mission.<sup>22</sup>

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<sup>15</sup> *Introduction*, Ministry of New and Renewable Energy (US-28).

<sup>16</sup> NTPC 38<sup>th</sup> Annual report 2013-2014, National Thermal Power Corporation, p. 30 (US-13).

<sup>17</sup> *Id.*, p. 24 (US-13).

<sup>18</sup> NPTC, *Overview*, [http://www.ntpc.co.in/index.php?option=com\\_content&view=article&id=42&Itemid=75&lang=en](http://www.ntpc.co.in/index.php?option=com_content&view=article&id=42&Itemid=75&lang=en) (US-29).

<sup>19</sup> *Introduction*, SECI (US-14) (“Solar Energy Corporation of India (SECI) was set up on 20th September 2011, as a not-for-profit company under Section-25 of the Companies Act 1956 as an implementation and facilitation institution dedicated to Solar Energy sector. SECI is established under the administrative control of the Ministry of New and Renewable Energy, Government of India. Mandate of SECI allows wide ranging activities to be undertaken with an overall view to facilitate implementation of JNNSM and achieving the targets set therein. The Corporation has the objective of developing Solar Technologies and ensuring inclusive solar power development throughout India.”).

<sup>20</sup> “2<sup>nd</sup> Annual report 2012-13,” Solar Energy Corporation of India (a Government of India Enterprise), March 31, 2013, p. 15. (US-31)

<sup>21</sup> *Id.*

<sup>22</sup> “2<sup>nd</sup> Annual report 2012-13,” Solar Energy Corporation of India (a Government of India Enterprise), March 31, 2013, p. 22. (US-31).

### 3. Operation of the JNNSM Programme

#### a. JNNSM Programme measures

21. In operating the JNNSM Programme, India utilizes a series of instruments and documents (i.e., JNNSM Programme measures) to set out relevant aspects of the Programme for each phase and batch, including the domestic content requirements. Each of Phase I (Batch 1), Phase I (Batch 2) and Phase II (Batch 1) is governed by similar set of key documents. Specifically, the JNNSM Programme measures for each phase include: (1) a Guidelines document; (2) a request for selection (RfS) document; (3) a model PPA; and (4) individually executed PPAs.

22. The Guidelines documents set out the requirements concerning solar power project eligibility, the bid submission process for SPDs, technical specifications, and contract issuance. As explained below, each Guidelines document contains domestic content requirements for each Phase and Batch.

23. The RfS document, essentially the application that SPDs use to submit bid proposals, sets out further details regarding the application process, standard terms and conditions applicable to solar power projects, and technical specifications. Again, each RfS document contains domestic content requirements for each Phase and Batch.

24. The model PPAs, which incorporate provisions of the Guidelines and RfS documents by reference, are used to execute individual PPAs with SPDs. The model PPA, which forms the basis for each executed PPA, incorporates domestic content requirements.

25. The key JNNSM Programme documents for each Phase and Batch are listed in the following table:

Key JNNSM Programme Measures	
Phase I (Batch 1)	<p><i>Guidelines for Selection of New Grid Connected Solar Power Projects</i>, MNRE (July 2010) (US-5)</p> <p><i>Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I of JNNSM</i>, NTPC Vidyut Vyapar Nigam Limited (August 18, 2010) (US-15)</p> <p><i>Draft Standard Power Purchase Agreement for Procurement of __ MW Solar Power on Long Term Basis (Under New Projects Scheme)</i>, NTPC Vidyut Vyapar Nigam Limited (August 18, 2010) (US-16)</p>
Phase I (Batch 2)	<p><i>Guidelines for Selection of New Grid Connected Solar Power Projects, Batch II</i>, MNRE (August 24, 2011) (US-6)</p> <p><i>Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I, Batch II of JNNSM</i>, NTPC Vidyut Vyapar Nigam Limited (August 24, 2011) (US-17)</p> <p><i>Draft Standard Power Purchase Agreement for Procurement of __ MW Solar Power on Long Term Basis (Under New Projects Scheme) (Second Batch)</i>, NTPC Vidyut Vyapar Nigam Limited (August 23, 2011) (US-18)</p>
Phase II (Batch 1)	<p><i>Guidelines for Implementation of Scheme for Setting up of 750 MW Grid-Connected Solar PV Power Projects Under Batch-1, Jawaharlal Nehru National Solar Mission</i>, MNRE (October 2013) (US-7)</p> <p><i>Request for Selection (RfS) Document for 750 MW Grid Connected Solar Photo Voltaic Projects under JNNSM Phase II Batch-I</i>, SECI (October 28, 2013) (US-12)</p> <p><i>Draft Standard Power Purchase Agreement for Procurement of __MW Solar Power on Long Term Basis under JNNSM, Phase II, Batch I Scheme</i>, SECI (November 30, 2013) (US-19)</p>

b. *Domestic Content Requirements*

26. As noted, the JNNSM Programme establishes domestic content requirements under Phase I (Batch 1), Phase I (Batch II), and Phase II (Batch I) for SPDs entering into certain power purchase agreements. Each of the Guidelines documents states that SPDs' participation in the JNNSM Programme is strictly conditioned on their compliance with the applicable domestic content requirements.

- The Phase I, Batch 1 Guidelines state: “For Solar PV Projects it will be mandatory for Projects based on crystalline silicon technology to use the modules manufactured in India...” Section 2.5(D) (US-5)
- The Phase I, Batch 2 Guidelines state: “For Solar PV Projects to be selected in second batch during FY 2011-12, it will be mandatory for all the Projects to use cells and modules manufactured in India...” Section 2.5(D) (US-6)
- The Phase II Guidelines state: “Under the DCR [i.e., “domestic content requirement”], the solar cells and modules used in the power plant must both be made in India.” Section 2.6(E) (US-7)

27. The domestic content requirements are restated verbatim in each of the RfS documents.

- The Phase I (Batch 1) RfS document states: “For Solar PV Projects it will be *mandatory* for Projects based on crystalline silicon technology to use the modules manufactured in India...(emphasis added)” Section 3(D) (US-15)
- The Phase I (Batch 2) RfS document states: “For Solar PV Projects to be selected in second batch during FY 2011-12, it will be *mandatory* for all the Projects to use cells and modules manufactured in India...(emphasis added)” Section 3(D) (US-17)
- The Phase II (Batch 1) RfS document states: “For Projects to be implemented under Part-A (375 MW), both the solar cells and modules used in the Solar Power Projects *must* be made in India (emphasis added).” Section 3(E) (US-12)

28. Moreover, as part of bid applications submitted pursuant to the RfS documents, SPDs were obligated to furnish a “specific plan” for meeting the applicable domestic content requirements “within 180 days of signing a PPA” under Phase I<sup>23</sup> and within “210 days of signing a PPA” under Phase II (Batch 1).<sup>24</sup>

29. As can be noted from the excerpts above, India progressively expanded the scope of the domestic content requirements with the roll-out of each new Batch.

30. Under Phase I (Batch 1), for example, although India generally encouraged SPDs to use domestically produced components in their solar power projects, the use of domestic content was mandatory only with respect to *crystalline silicon solar PV modules*. The Phase I (Batch 1) Guidelines state in relevant part:

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<sup>23</sup> *Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I of JNNSM*, NTPC Vidyut Vyapar Nigam Limited, p. 51 (August 18, 2010) (US-15).

<sup>24</sup> *Request for Selection (RfS) Document for 750 MW Grid Connected Solar Photo Voltaic Projects Under JNNSM Phase II Batch-I*, Solar Energy Corporation of India, p. 71 (October 28, 2013) (US-12).

... Developers are expected to procure their project components from domestic manufacturers, *as far as possible*. However, in the case of Solar PV Projects to be selected in first batch during FY 2010-11, *it will be mandatory for Projects based on crystalline silicon technology to use the modules manufactured in India.*<sup>25</sup>

31. Under Phase I (Batch 2), India continued to impose domestic content requirements for crystalline silicon modules, but expanded the domestic content requirements to also cover *solar cells of any technology type*. Thin film modules, however, remained exempt from domestic content requirements under Phase I (Batch 2). The Phase I (Batch 2) Guidelines state in relevant part:

For Solar PV Projects to be selected in second batch during FY 2011-12, *it will be mandatory for all the Projects to use cells and modules manufactured in India. PV Modules made from thin film technologies or concentrator PV cells [however] may be sourced from any country.*<sup>26</sup>

32. In addition, although plans for Phase II (Batch 2) have not yet been finalized, it appears that the MNRE will continue to impose domestic content requirements for all solar cells and modules under Phase II (Batch 2). Specifically, Section 2.5(D) of the Draft Guidelines for Phase II (Batch 2) is titled “Domestic Content Requirement” and states that: “Under [the] DCR [i.e., the domestic content requirement], the solar cells and module used in the solar PV power plants must both be made in India.”<sup>27 28</sup>

33. In order for an SPD to be selected to participate in the JNNSM Programme, to enter into a PPA, and to receive the guaranteed, long-term rates under the JNNSM Programme, they must comply with the domestic content requirements of Phase I (Batch 1), Phase I (Batch 2) and Phase II (Batch 1). The following table summarizes the domestic content requirements for each phase.

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<sup>25</sup> *Guidelines for Selection of New Grid Connected Solar Power Projects*, Section 2.5(D) (emphasis added) (US-5).

<sup>26</sup> *Guidelines for Selection of New Grid Connected Solar Power Projects*, Batch II, Section 3(D) (emphasis added) (US-17).

<sup>27</sup> *Draft Guidelines for Selection of 3000 MW Grid-Connected Solar PV Power Projects under Batch-II Tranche-I State Specific Scheme (“Draft Guidelines”)* (US-8).

<sup>28</sup> The Phase II (Batch 2) *Draft Guidelines* issued in October 2014 pertain specifically to “Part-I” of the first tranche, under which the MNRE plans to allocate a total 1000 MW of solar capacity, with 250 MW reserved for solar projects that use domestically manufactured solar cells and modules. Out of the total capacity of 1000 MW under Phase-II Batch-II Tranche-I Part-I, a capacity of 250 MW will be kept for bidding with Domestic Content Requirement (DCR). *See, Draft Guidelines*, Section 2.5(D) (US-8).

JNNSM PROGRAMME DOMESTIC CONTENT REQUIREMENTS		
	<i>Domestic Content Required</i>	<i>Exempt from Domestic Content Requirements</i>
PHASE I (BATCH 1)	<ul style="list-style-type: none"> <li>▪ crystalline silicon solar modules</li> </ul>	<ul style="list-style-type: none"> <li>▪ thin-film solar modules</li> <li>▪ solar cells</li> </ul>
PHASE I (BATCH 2)	<ul style="list-style-type: none"> <li>▪ crystalline silicon solar modules</li> <li>▪ solar cells</li> </ul>	<ul style="list-style-type: none"> <li>▪ thin-film solar modules</li> </ul>
PHASE II	<ul style="list-style-type: none"> <li>▪ <i>crystalline silicon solar modules</i></li> <li>▪ <i>thin-film solar modules</i></li> <li>▪ <i>solar cells</i></li> </ul>	<i>(NO Exemptions from Domestic Content Requirement under Phase II)</i>

c. *JNNSM Programme Selection of SPDs and Contract Rates and Terms*

34. As noted, to have the possibility or advantage of entering into a PPA under the program, a solar power developer must comply with the requisite domestic content requirements. In addition, under a PPA entered under both Phases I and II, India (through NVVN and SECI, respectively) purchases the electricity generated by SPDs at contractually guaranteed long-term tariff rates. These contracts (*i.e.*, the PPAs) remain in effect for a term of 25 years.

35. In this section, the United States briefly lays out the process for selecting SPDs to enter into PPAs and determining individual tariff rates, which is different under Phase I and Phase II.

36. **Phase I:** Under Phase I (both Batch 1 and Batch 2), SPDs and their applicable tariff rates were determined through a reverse bidding process. As part of their bid submission, SPDs indicated the Rupees per MW rate at which they were willing to sell electricity to NVVN during the 25-year contract term and selected on the basis of lowest offers.<sup>29</sup> SPDs were chosen until

<sup>29</sup> Specifically, the SPD offering the largest discount vis-à-vis a “CERC Approved Applicable Tariff” was selected first, the developer offering the next largest discount was selected next, and so on, until the target for power generation was reached. *Guidelines for Selection of New Grid Connected Solar Power Projects*, p. 7 (US-5). The CERC Approved Applicable Tariff is determined by the Central Electricity Regulatory Commission (“CERC”), a statutory body constituted under the Electricity Act of 2003. Electricity Act of 2003 [No. 36 of 2003], §§ 76(1) (2003) (US-20). The CERC’s main responsibilities involve the regulation of the tariff of all electricity generating companies, including those owned or controlled both by the Central Government and by private entities. For Phase I (Batch I), the CERC rate was set at 1791 Paisa / Kwh. Under Phase I (Batch 2), the rate was pegged at 1539 Paisa / Kwh.

selected projects reached the 150 MW target under Batch 1 and the 350 MW target under Batch 2.<sup>30 31 32</sup>

37. **Phase II (Batch 1):** Under the “DCR” tranche of Phase II (Batch 1), the SECI offers an identical 25-year fixed rate to all SPDs (*i.e.*, 5.45 Rupees / MW). In addition to agreeing to purchase electricity from developers at that rate, SECI also provides SPDs with a “capital grant” – termed “Viability Gap Funding” –<sup>33</sup> of up to 30 percent of SPDs’ total project costs or 25 million Rupees / MW, whichever is lower.<sup>34</sup> When submitting bids under Phase II, SPDs indicated the amount of Viability Gap Funding necessary to incentivize them to set up a solar power project. The SPD indicating the lowest amount of Viability Gap Funding was selected first, the developer offering the next lowest amount was selected next, and so on, until a capacity of 375 MW was reached under each of the “open” and “DCR” tranches.<sup>35</sup>

38. **Phase II (Batch 2):** As noted above, the MNRE issued *Draft Guidelines* for Phase II (Batch 2) on October 14, 2014.<sup>36</sup> Based on the *Draft Guidelines*, the MNRE plans to implement Phase II (Batch 2) in three separate tranches, with the ultimate goal of adding 15,000 MW of

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<sup>30</sup> SPDs submitted 343 bid applications under Phase I (Batch 1), and 180 bids under Phase I (Batch 2). *The Economic Times*, “Big Business Groups to Push Renewable Energy Space by Raising Capacity” (February 15, 2013) (US-27). NVVN selected 36 projects under Batch 1 and 27 projects under Batch 2. *List of Selected Projects*, NVVN, undated; *List of Solar PV Projection under JNNSM Phase I Batch II Achieved Financial Closure as Per Schedule*, NVVN, undated (US-22).

<sup>31</sup> Under Batch 1, NVVN set a limit of only one bid per developer; projects were capped at a capacity of five MW each. *Guidelines for Selection of New Grid Connected Solar Power Projects*, p. 5 (US-5) (“In order to have wider participation from SPDs, only one application per Company including its Parent, Affiliate or Ultimate Parent-or any Group Company shall be permitted for development of one project of 5 MW  $\pm$ 5%size using a Solar PV Project.”).

<sup>32</sup> Under Batch 2, developers were permitted to submit up to three bids, with an aggregate capacity of no more than 50 MW per developer. *Guidelines for Selection of New Grid Connected Solar Power Projects, Batch II*, p. 5 (US-6) (“The total capacity of Solar PV Projects to be allocated to a Company including its Parent, Affiliate or Ultimate Parent-or any Group Company shall be limited to 50 MW. The Company, including its Parent, Affiliate or Ultimate Parent-or any Group Company may submit application for a maximum of three projects at different locations subject to a maximum aggregate capacity of 50 MW.”).

<sup>33</sup> India explicitly defines Viability Gap Funding as “capital grant.” See *Phase II Policy Document, JNNSM*, Section 3.1.3 (US-3).

<sup>34</sup> The Viability Gap Funding is paid out to developers in six tranches: 50% is paid once the solar project is running a “full capacity”, with the remaining 50% paid out at 10% a year for the following five years. See *Guidelines for Implementation of Scheme for Setting up of 750 MW Grid-Connected Solar PV Power Projects Under Batch-I, JNNSM*, Section 1.3 – Mechanism of Viability Gap Funding (US-7).

<sup>35</sup> Under Phase II (Batch 1), SECI did not restrict the number of projects for which developers could submit bids, but did set a 100 MW limit on the aggregate capacity of project bids from any single developer. *Id.*, p. 9 (US-7) (“The total capacity of Solar PV Projects to be allocated to a Company including its Parent, Affiliate or Ultimate Parent-or any Group Company shall be limited to 100 MW, out of the total capacity of 750 MW to be added under batch-I Phase-II.”).

<sup>36</sup> See *Draft Guidelines for Selection of 3000 MW Grid-Connected Solar PV Power Projects under Batch-II Tranche-I State Specific Scheme (“Draft Guidelines”)* (US-8).

solar capacity by 2019.<sup>37</sup> The MNRE has not yet released draft RfS or PPA documents for Phase II (Batch 2).<sup>38</sup> The United States is unaware of when the MRNE will finalize plans for Phase II (Batch II), but notes that the MNRE has set an October 30, 2014 deadline for receipt of comments on the *Draft Guidelines* from SPDs and other stakeholders.<sup>39</sup>

#### **4. Individually Executed JNNSM Programme Power Purchase Agreements**

39. The measures at issue in this dispute also include the domestic content requirements under the JNNSM Programme incorporated in individually executed PPAs.

40. NVVN has entered into 36 PPAs with SPDs under Phase I (Batch 1)<sup>40</sup> and 27 PPAs under Phase I (Batch 2).<sup>41</sup> In addition, SECI has issued Letters of Intent to enter into PPAs with 47 SPDs under Phase II (Batch 1).<sup>42</sup>

41. As noted above, each PPA is executed based on a model PPA that incorporates domestic content requirements from the Guidelines and RfS for that Phase and Batch. Each PPA thus incorporates domestic content requirements. Moreover, as detailed in Section III.A.1 below, and the Guidelines and RfS documents further establish that a SPD is subject to financial penalty if the SPD fails to specify how it will satisfy with the applicable domestic content requirement.

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<sup>37</sup> Specifically, Section 1.4 of the *Draft Guidelines* (US-8) provides

MNRE now proposes to add a total Solar PV capacity of 15000 MW in three tranches to be implemented through NVVN as part of Phase-II Batch-II. The scheme envisages setting up of Grid-connected solar PV power plants of 15,000 MW aggregate capacity through open competitive bidding as under:

(i) Tranche-I : 3,000 MW : 2014-15 to 2016-17 (Bundling with 1500 MW unallocated NTPC Power from Coal

Station allocated by MoP).

(ii) Tranche-II : 5,000 MW: 2015-16 to 2017-18 (selection mechanism to be decided later)

(iii) Tranche-III : 7,000 MW: 2016-17 to 2018-19 (selection mechanism to be decided later)

<sup>38</sup> From the *Draft Guidelines*, it appears that Phase II (Batch 2) will not utilize the Viability Gap Funding mechanism used in Phase II (Batch 1). Instead, India may revert to the tariff-based reverse-bidding scheme employed in Phase I. Section 3.7 of the *Draft Guidelines*.

<sup>39</sup> *Draft Guidelines, Invitation of comments* (US-8).

<sup>40</sup> *List of Selected Projects* (US-21).

<sup>41</sup> *List of Solar PV Projection under JNNSM Phase I Batch II Achieved Financial Closure as Per Schedule* (US-22).

<sup>42</sup> *Notification Regarding Selected Projects of 750 MW Grid Connected Solar PV Projects Under JNNSM Phase-II Batch-I*, SECI (February 25, 2014) (US-23).

## 5. The Domestic Content Requirements Impede the Achievement of JNNSM Programme's Solar Energy Goals

42. Indian SPDs, as well as Indian officials, indicate that the JNNSM Programme's domestic content requirements undermine India's stated objective of promoting the efficient, reliable, and cost-effective generation of solar power. Specifically, SPDs have warned that India lacks the domestic manufacturing capacity to produce high-quality, competitive-priced solar cells and modules in the volumes necessary to achieve the ambitious goals of the JNNSM Programme, such as the generation of 20,000 MW of grid-connected solar power by 2022. For example:

- On March 24, 2014, the NSEFI, an industry association of Indian SPDs, complained to MNRE about the domestic content requirements in a letter to that agency.<sup>43</sup> As reported in *PV Tech*, an online solar journal:

NSEFI concludes manufacturers' price rises have made it "impossible" for developers to execute DCR projects, and the movements are a "serious threat to the solar mission", and could deter developers from future DCR projects<sup>44</sup>

- The NSEFI letter indicated that domestic manufactures have used the domestic content requirements to extract higher prices on solar cells and modules, stating:

the most distressing and worrying feature is a supposed cartelization by some of the larger domestic cell manufacturers. Taking advantage of the procurement compulsions imposed by the...conditions of domestic content, bidding having been completed and strict time limits having been imposed, the manufacturers have increased cell prices by a whopping 6-8 cents/Wp within few days of award announcement. This has made the module manufacturers increase the price per Wp by close to 15-16% than the initial quotes before bidding. This has made DCR projects economically unviable.<sup>45</sup>

43. Indian officials have also raised concerns about the productive capacity of domestic solar cell and module manufacturers. For example, in June 2014, India's Minister of Power, Piyush Goyal, told reporters, "As things stand today, India doesn't have adequate manufacturing capacity to support the kind of thrust we want to give to solar."<sup>46</sup> Also in June 2014, the MNRE was reported as saying domestic makers cannot supply enough solar cells to keep pace with plans to quadruple solar power capacity in the next three years.<sup>47</sup>

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<sup>43</sup> *Natural Group*, "NSEFI Letter to SECI and MNRE Regarding Issues With DCR Category Projects Under JNNSM Phase II, Batch I" (March 26, 2014) (US-24).

<sup>44</sup> *PV Tech*, "Solar Cell Price Rises 'Putting Indian Domestic Content Projects at Risk'" (March 28, 2014) (US-1).

<sup>45</sup> *Natural Group*, "NSEFI Letter to SECI and MNRE Regarding Issues With DCR Category Projects Under JNNSM Phase II, Batch I" (US-24).

<sup>46</sup> *Bloomberg News*, "India Power Ministry Seeks to Reverse Solar Duties" (June 23, 2014) (US-25).

<sup>47</sup> *Bridge to India*, "Weekly Update: No anti-dumping duties: Indian government lets deadline lapse," undated (US-26).

44. These statements indicate that, whatever the environmental objectives of the JNNSM Programme, the domestic content requirements for solar cells and modules do not advance those objectives.

### III. LEGAL ARGUMENT

#### A. The Domestic Content Requirements in the JNNSM Programme Are Inconsistent with India’s National Treatment Obligation Under Article III:4 of the GATT 1994

45. The domestic content requirements under the JNNSM Programme measures are inconsistent with India’s national treatment obligations under Article III:4 of the GATT 1994, because, *inter alia*, the domestic content requirements operate to accord “less favourable” treatment to imported solar cells and modules than that accorded to cells and modules of Indian origin. India cannot justify these domestic content requirements by invocation of the “government procurement” exception under Article III:8(a) of the GATT 1994.

##### 1. The domestic content requirements of the JNNSM Programme measures are inconsistent with Article III:4 of the GATT 1994 because they accord less favorable treatment to imported solar cells and modules as compared to solar cells and modules made in India.

46. GATT 1994 Article III:4 provides:

The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use.

47. Interpreting Article III:4, the Appellate Body in *Korea – Various Measures on Beef* explained the three elements of a national treatment breach in the following manner:

[i] that the imported and domestic products at issue are “like products”; [ii] that the measure at issue is a “law, regulation, or requirement affecting their internal sale, offering for sale, purchase, transportation, distribution, or use”; and [iii] that the imported products are accorded “less favourable” treatment than that accorded to like domestic products.<sup>48</sup>

48. The domestic content requirements in Phases I and II of the JNNSM Programme satisfy each of these criteria and are consequently inconsistent with Article III:4 of the GATT 1994. Specifically, the domestic content requirements under the JNNSM Programme measures are inconsistent with India’s national treatment obligations under Article III:4 of the GATT 1994,

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<sup>48</sup> See *Korea – Various Measures on Beef (AB)*, para. 133.

because (i) imported and domestic solar cells and modules are “like products”; (ii) they impose “requirements” on SPDs “affecting” the “internal” “sale,” “purchase,” or “use” of solar cell and modules; and (iii) they accord imported solar cells and modules treatment less favorable than to “like products” of Indian origin.

a. “like products”

49. Solar cells and modules manufactured domestically in India and those imported from the United States are “like products” within the meaning of Article III:4 of the GATT 1994. Apart from country of origin, the JNNSM Programme measures make no further distinction between imported and domestic solar cells and modules. Previous reports have found this to be a sufficient basis to conclude that imported and domestic products are like.

50. Specifically, WTO panels have found that products are “like,” for purpose of GATT 1994 Article III:4 where origin is the sole distinguishing criterion between the products in the measures in question. For example, in *India – Autos*, which concerned a local content requirement imposed by India on India’s automotive sector, the panel stated that:

the only factor of distinction under the “indigenization” condition between products which contribute to fulfilment of the condition and products which do not, is the origin of the product as either imported or domestic. India has not disputed the likeness of the relevant automotive parts and components of domestic or foreign origin for the purposes of Article III:4 of the GATT 1994. *Origin being the sole criterion distinguishing the products, it is correct to treat such products as like products within the meaning of Article III:4.*<sup>49</sup>

51. The panel in *Canada – Wheat Exports and Grain Imports* followed a consistent approach, stating “where a Member draws an origin-based distinction... a comparison of specific products is not required and... it is not necessary to examine the various likeness criteria.”<sup>50</sup> That is, where origin is the sole distinguishing criterion, there is no need to establish the likeness between imported and domestic products in terms of the traditional criteria – *i.e.*, their physical properties, end-uses and consumers' tastes and habits, *etc.*

52. In addition, in *Argentina – Import Measures*, which also involved local content requirements, the panel noted that “The local content requirement focuses on the origin of the product. *The only distinguishing feature between an imported product and a domestic one, in terms of the application of this requirement, is its origin.*”<sup>51</sup> The panel therefore concluded that “as far as the [] measure is concerned, with respect to the local content requirement, imported and domestic products are “like” for the purposes of Article III:4 of the GATT 1994.”<sup>52</sup>

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<sup>49</sup> *India – Autos (Panel)*, para. 7.174 (emphasis added).

<sup>50</sup> *Canada – Wheat Exports and Grain Imports (Panel)*, footnote 246 to para. 6.164.

<sup>51</sup> *Argentina – Import Measures (Panel)*, para. 6.275 (emphasis added).

<sup>52</sup> *Id.*, para 6.276

53. Moreover, in *US – COOL*, which concerned a country-of-origin labeling requirement (*i.e.*, the “COOL measure”) for certain meat products, the panel reflected that “in previous disputes, products that are distinguished solely on the basis of their origin were found to be like products within the meaning of Article III:4.”<sup>53</sup> The panel then noted that “the COOL measure distinguishes the products at issue according to the country in which the birth, raising and slaughtering of the animal from which meat is derived took place.” On that basis, the COOL panel concluded that it “need not engage in any further analysis to conclude that the products at issue in this dispute are ‘like products’...”<sup>54</sup>

54. Like the measures at issue in the disputes cited above, apart from country of origin, none of the JNNSM Programme measures note any difference between solar cells and modules made in India as compared with imported solar cells and modules. Indeed, in the JNNSM Programme’s domestic content requirement provisions, the only distinguishing criterion is between those cells and modules “made in India” or “manufactured in India” versus cells and modules “sourced from any country.”<sup>55</sup>

55. In addition to the domestic content requirements, the Guidelines and RfS documents also set forth technical requirements for solar modules used in solar power projects under the JNNSM Programme. As stated in the Phase I (Batch 1) Guidelines, these technical requirements are intended to “ensure [the] quality of the PV modules used in grid solar power projects.”<sup>56</sup> Moreover, solar modules that meet these technical requirements – whether those modules are imported or made in India – are suitable, in terms of function and quality, for use in solar power projects under the JNNSM Programme. Indeed, that imported and domestic products are “like” is confirmed by the fact that several Indian solar power developers used U.S.-manufactured solar modules in projects under Phase I of the JNNSM Programme (during which certain solar modules were originally exempt from domestic content requirements). For example:

- In September 2012, Green Infra, an India-based solar power developer, contracted with First Solar USA for supply of modules for a 25MW project in Rajasthan under India's Jawaharlal Nehru National Solar Mission.<sup>57</sup>

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<sup>53</sup> *US – COOL (Panel)*, para. 7.255.

<sup>54</sup> *Id.*, para. 7.256.

<sup>55</sup> For example, and as detailed above, Section 2.5(D) of the Phase I (Batch 1) Guidelines (US-5) states that “it will be mandatory for Projects based on crystalline silicon technology to use the modules manufactured *in India*... (emphasis added)”. Similarly, Section 2.5(D) of the Phase I, Batch 2 Guidelines (US-6) states “it will be mandatory for all the Projects to use cells and modules manufactured in India...,” but also noted that “modules made from thin film technologies... may be *sourced from any country* (emphasis added).” Section 2.6(E) (US-7) of the Phase II Guidelines states that “the solar cells and modules used in the power plant must both be made *in India* (emphasis added).”

<sup>56</sup> See, *Guidelines for Selection of New Grid Connected Solar Power Projects*, Ministry of New and Renewable Energy (July 2010), Annexure 1A, Technical Requirements of PV Module for use in Grid Solar Power Plants (US-5).

<sup>57</sup> First Solar and Green Infra conclude supply agreement for solar modules,” Market Line, September 10, 2012.

- In December 2012, PR Fonroche, a joint-venture between PR Clean Energy (India) and Fonroche Energie S.a.s (France), in collaboration with Mahindra EPC, commissioned a project in Rajasthan under the National Solar Mission's Phase-I, Batch-II. The 5 MWp solar PV power plant sourced solar PV modules from First Solar USA.<sup>58</sup>
- In February 2013, Azure Power, an India-based solar power developer, commissioned a 35MW plant in Nagaur, Rajasthan and sourcing its photovoltaic modules from First Solar USA. The project was awarded under the Phase I Batch II allocation of the Jawaharlal Nehru National Solar Mission and now supplies power to Rajasthan Rajya Vidyut Utpadan Nigam Ltd.<sup>59</sup>

56. Accordingly, because origin is the sole distinguishing criterion between the imported and domestic solar cells in the JNNSM Programme, the Panel in this dispute should find that solar cells and modules at issue in this case are “like products within the meaning of Article III:4 of the GATT 1994. For the same reasons, there is no need to establish the likeness between imported and domestic cells and modules in terms of the Appellate Body’s traditional “likeness” criteria.<sup>60</sup>

- b. *“laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use”*

57. The domestic content provisions of the JNNSM Programme measures are “requirements” that “affect” the “internal” “sale”, “purchase,” or “use” of solar cells and modules in India within the meaning of Article III:4 of the GATT 1994.

- i. *“requirement”*

58. As the panel noted in *India – Autos*:

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<sup>58</sup> “First Solar PV Project under Phase-I of National Solar Mission Commissioned,” Projects Monitor, December 27, 2012.

<sup>59</sup> “Azure Power commissions the largest solar PV project under JNNSM before the scheduled date,” Azure Power Press Release, February 14, 2013.

<sup>60</sup> As the facts described above establish, the imported and solar cells at issue are identical in terms of physical properties, end uses, function, and tariff classifications, and therefore would be considered “like products” under the approach that the Appellate Body has taken to establish “likeness” between products. As the Appellate Body noted in *EC – Asbestos*, “a determination of ‘likeness’ under Article III:4 of the GATT 1994 is, fundamentally, a determination about the nature and extent of a competitive relationship between and among products”. Based on the satisfaction of technical characteristics set out in the Programme measures and evidence of actual purchases of imported solar modules by Indian SPDs, imported cells and modules would be considered “like” domestic cells and modules under the *EC – Asbestos* approach.

GATT jurisprudence . . . suggests two distinct situations which would satisfy the term “requirement” in Article III:4:

- (i) obligations which an enterprise is “legally bound to carry out”;
- (ii) those which an enterprise voluntarily accepts in order to obtain an advantage from the government.<sup>61</sup>

59. The JNNSM Programme’s domestic content provisions are “requirements” because, under those provisions, an SPD selected to participate in the program and entering into a PPA will voluntarily accept an obligation to use solar cells and modules manufactured in India. Having entered into the PPA, the solar power developer is legally bound, by contract, to carry out that commitment.

60. As noted in Section II.A.3 above, the PPAs entered into under the JNNSM Programme incorporate provisions of the Guidelines and RfS documents by reference. The domestic content requirements set out in the Guidelines and RfS documents then become part of each executed PPA.<sup>62</sup>

61. At the outset, the Phase I and Phase II Guidelines make clear that the applicable domestic content requirements are “mandatory.” Specifically:

- The Phase I, Batch 1 Guidelines state: “For Solar PV Projects it will be *mandatory* for Projects based on crystalline silicon technology to use the modules manufactured in India...(emphasis added)” Section 2.5(D)<sup>63</sup>
- The Phase I, Batch 2 Guidelines state: “For Solar PV Projects to be selected in second batch during FY 2011-12, it will be *mandatory* for all the Projects to use cells and modules manufactured in India...(emphasis added)” Section 2.5(D)<sup>64</sup>

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<sup>61</sup> *India – Autos (Panel)*, para. 7.184. See also *Canada – Autos (Panel)*, para. 10.73; *Turkey – Rice*, para. 7.218; *China – Auto Parts (Panel)*, para. 7.240.

<sup>62</sup> As discussed in Section II, above, the scope of the domestic content requirements are different under Phase I (Batch 1), Phase I (Batch 2), and Phase II (Batch 1). Under Phase I (Batch 1), the domestic content requirement applied to only crystalline silicon *modules*. Under Phase I (Batch 2), the domestic content requirements continued to cover crystalline silicon *modules*, but were extended to cover solar *cells* of any type. Under Phase II (Batch 1), the domestic content requirements apply to *both* solar cells and module of any type (*i.e.*, thin film *and* crystalline silicon technology).

<sup>63</sup> *Guidelines for Selection of New Grid Connected Solar Power Projects* (US-5).

<sup>64</sup> *Guidelines for Selection of New Grid Connected Solar Power Projects, Batch II* (US-6).

- The Phase II Guidelines state: “Under the DCR [*i.e.*, “domestic content requirement”], the solar cells and modules used in the power plant *must* both be made in India. (emphasis added)” Section 2.6(E)<sup>65</sup>

62. An SPD that wishes to enter into a PPA indicates, through the submission of bid application pursuant to the RfS document, that it will comply with a variety of conditions, including the use of solar cells and modules of India origin, if selected. The Phase I and Phase II RfS documents – pursuant to which SPDs submit bid applications – also make clear that the applicable domestic content requirement provisions are mandatory. Specifically:

- The Phase I (Batch 1) RfS document states: “For Solar PV Projects it will be *mandatory* for Projects based on crystalline silicon technology to use the modules manufactured in India...” Section 3(D)<sup>66</sup>
- The Phase I (Batch 2) RfS document states: “For Solar PV Projects to be selected in second batch during FY 2011-12, it will be *mandatory* for all the Projects to use cells and modules manufactured in India...” Section 3(D)<sup>67</sup>
- The Phase II (Batch 1) RfS document states: “For Projects to be implemented under Part-A (375 MW), both the solar cells and modules used in the Solar Power Projects *must* be made in India.” Section 3(E)<sup>68</sup>

63. Moreover, as noted above, when submitting a bid pursuant to the RfS documents, SPDs must “certify” that they will “specify their plan for meeting the requirement for domestic content” “within 180 days of signing of [a] PPA” under Phase I<sup>69</sup> and within “210 days of signing of [a] PPA” under Phase II (Batch 1).<sup>70</sup> By so certifying, SPDs also acknowledge that failure to provide such specification will be penalized by forfeiture of an earnest money deposit.<sup>71</sup>

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<sup>65</sup> *Guidelines for Implementation of Scheme for Setting up of 750 MW Grid-Connected Solar PV Power Projects Under Batch-1, Jawaharlal Nehru National Solar Mission (US-7).*

<sup>66</sup> *Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I of JNNSM (US-15).*

<sup>67</sup> *Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I, Batch II of JNNSM (US-17).*

<sup>68</sup> *Request for Selection (RfS) Document for 750 MW Grid Connected Solar Photo Voltaic Projects Under JNNSM Phase II Batch-I (US-12).*

<sup>69</sup> *Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I of JNNSM, NTPC Vidyut Vyapar Nigam Limited, p. 51 (August 18, 2010) (US-15).*

<sup>70</sup> *Request for Selection (RfS) Document for 750 MW Grid Connected Solar Photo Voltaic Projects Under JNNSM Phase II Batch-I, Solar Energy Corporation of India, p. 71 (October 28, 2013) (US-12).*

<sup>71</sup> *Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I of JNNSM, NTPC Vidyut Vyapar Nigam Limited, p. 51 (August 18, 2010) (US-15).* (*i.e.*, “shall constitute sufficient grounds for encashment of our Performance Bank Guarantee.”).

64. Thus, the domestic content provisions are properly viewed as “requirements” because SPDs submit their bid(s) with full knowledge that participation in the JNNSM Programme is conditioned on compliance with the domestic content provisions. By submitting a bid application, SPDs signal their “voluntary accept[ance]” of the obligation to use domestic content “in order to obtain an advantage from the government” in the form of a PPA, which also guarantees long-term tariffs rates and other financial benefits. Once the PPA is executed, the solar power developer is legally obligated, by contract, to carry out the domestic content requirements. And those requirements are obligatory in the JNNSM Programme measures for all Phase and Batches.

ii. “affecting” the “internal” “sale”, “purchase” or “use”

65. The domestic content requirements affect the internal sale, purchase, and use of solar cells and modules because those requirements modify the conditions of competition between solar cells and modules manufactured in India and those imported.

66. The term “affecting” assists in defining the types of measures that must conform to the obligation not to accord “less favourable treatment” to like imported products as set out in GATT 1994 Article III:4. The Appellate Body and panels have found the term “affecting” to mean having “an effect on”, encompassing measures that modify the conditions of competition between domestic and imported goods in the market.<sup>72</sup> The Appellate Body, in particular, noted that the term “affecting” in GATT 1994 Article III:4 has “a broad scope of application”,<sup>73</sup> and that it operated to connect identified types of government action (*i.e.*, “laws, regulations and requirements”) with specific transactions, activities and uses relating to products in the marketplace (*e.g.*, “sale”, “purchase”, or “use”).<sup>74</sup> Further, the Appellate Body and panels have found measures that “create an incentive” for domestic over imported goods to “affect”, *inter alia*, the internal “use”, “purchase” or “sale” of those goods.<sup>75</sup>

67. In the present dispute, a concrete link exists between the domestic content requirements under the JNNSM Programme (which the United States has established are “requirements” under GATT 1994 Article III:4) and the internal sale, purchase, or use of solar cells and modules in India. Specifically, per the terms of JNNSM Programme measures, a SPD satisfies the applicable domestic content requirements by *purchasing* and *using* solar cells and modules made in India. The United States notes that the sale, purchase, or use of the equipment should be considered “internal” because the requirements apply with respect to the sale, purchase, or use for a project approved under the JNNSM Programme only inside the customs territory of India and not at the border. The JNNSM Programme measures are therefore properly viewed as

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<sup>72</sup> See *Turkey – Rice*, paras. 7.221-22. See also *Canada – Autos (Panel)*, para. 10.80 and *Canada – Autos (AB)*, para. 158.

<sup>73</sup> *US – FSC (Article 21.5 – EC) (AB)*, para. 210.

<sup>74</sup> See *id.*, para. 208.

<sup>75</sup> See *China – Auto Parts (AB)*, para. 196; *India – Autos (Panel)*, paras. 7.195-98 and 7.305-09; *US – FSC (Article 21.5 – EC) (AB)*, para. 212.

measures “affecting” the “internal sale... purchase... or use” of solar cells and modules within the meaning of GATT 1994 Article III:4.

c. *treatment no “less favourable”*

68. The domestic content requirements under the JNNSM Programme measures accord less favorable treatment to imported solar cells and modules than that accorded to like products of Indian origin by incentivizing the use of Indian-manufactured solar cells and modules, versus imported cells and modules, and thus modify the conditions of competition in favor of Indian-manufactured cells and modules to the detriment of imported equipment.

69. The Appellate Body in *Korea – Various Measures on Beef* determined that “[a]ccording ‘treatment no less favourable’ means . . . according conditions of competition no less favourable to the imported product than to the like domestic product.”<sup>76</sup> Thus, the focus of this analysis in this dispute is whether the JNNSM Programme measures *modify the conditions of competition* in the relevant market to the *detriment* of imported products.<sup>77</sup>

70. As explained above, under the JNNSM Programme, India will enter into PPAs (long term contracts at guaranteed rates, and which may offer Viability Gap Funding) with selected solar power developers contingent on their agreement to use domestically-produced solar cells and modules. A solar power developer that opts to use imported solar cells and/or modules is not eligible to participate in such portion of the program subject to the domestic content requirements. Thus, such a developer may not enter into a PPA under the program without undertaking the domestic use commitment.

71. Because the JNNSM Programme requires that a SPD use solar cells and modules of Indian origin in order to enter into a PPA under that part of the program subject to domestic content requirements, the program thus creates an incentive for SPDs to purchase solar cells and modules made in India. Viewed differently, if a solar power developer opts to use imported solar cells or modules for a specific project, it may not be eligible to bid or enter into a PPA under the program. By creating an incentive for the purchase of Indian solar cells and modules, the JNNSM Programme’s domestic content requirements accord less favorable “conditions of competition,” and therefore “less favorable treatment,” to imported solar cells and modules.

72. Indeed, in *India – Autos*, the panel found that “the very nature of [an] indigenization requirement generates an incentive to purchase and use domestic products and hence creates a disincentive to use like imported products”, and that it was “more than likely to have some effect on manufacturers’ choices as to the origin of parts and components to be used in manufacturing automotive vehicles”, as the manufacturers would “need to take into account the requirement to use a certain proportion of products of domestic origin.”<sup>78</sup> Under these circumstances, the panel

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<sup>76</sup> See *Korea – Various Measures on Beef (AB)*, para. 135. See also *Turkey – Rice*, para. 7.232.

<sup>77</sup> See also *China – Publications and Audiovisual Products (Panel)*, para. 7.1532.

<sup>78</sup> *India – Autos (Panel)*, para. 7.201.

found that the domestic content requirements at issue clearly modified the conditions of competition of domestic and imported parts and components in the Indian market in favor of domestic products.<sup>79</sup>

73. Similarly, the domestic content requirements of the JNNSM Programme clearly modify the conditions of competition between domestic and imported solar cells and modules in the Indian market in favor of domestic equipment. Because the JNNSM Programme has altered the conditions of competition in favor of Indian-produced solar cells and modules to the detriment of such equipment produced in the United States and elsewhere, it thereby accords imported equipment less favorable treatment than it accords to like products of Indian origin.

**2. The JNNSM Programme’s domestic content requirements for solar cells and modules cannot be justified by the “government procurement” exception under GATT 1994 Article III:8(a) because the Indian government does not procure solar cells and modules through the JNNSM Programme.**

74. GATT 1994 Article III:8(a) provides an exemption from the national treatment obligation in Article III:4. Specifically, this provision states:

The provisions of this Article shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale.

75. To fall within the GATT 1994 Article III:8(a) exception, then, a challenged measure must: (i) “govern[] the procurement by governmental agencies of products purchased for governmental purposes”; and (ii) “not [be undertaken] with a view to commercial resale or with a view to use in the production of goods for commercial sale”. If the measure under examination does not satisfy any element, the exemption from the national treatment obligation does not apply.

76. The JNNSM Programme measures fail to qualify for the exemption based on its first element relating to “procurement by governmental agencies.” No such government “procurement” exists in this case because India acquires *electricity* under the PPAs whereas the products which are subject to requirements affecting their sale, purchase, or use are *solar cells and modules*. These products – electricity versus solar cells and modules – are not the same nor in a competitive relationship. Put differently, while India procures electricity under the JNNSM Programme through PPAs, it does not procure solar cells or modules. Thus, Article III:8(a) cannot serve to exempt a requirement that discriminates against imported solar cells or modules.

77. This understanding of the scope of the exemption under Article III:8(a) has been reached in previous WTO reports. In *Canada – Renewable Energy / Feed-In Tariff Program*, the Appellate Body found that for purposes of GATT 1994 Article III:8(a), the imported product

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<sup>79</sup> See *id.*, para. 7.202.

being discriminated against must be in a competitive relationship with the domestic product being purchased by the government. Specifically, the Appellate Body stated:

We have found above that the condition for derogation under Article III:8(a) must be understood in relation to the obligations stipulated in the other paragraphs of Article III. *This means that the product of foreign origin allegedly being discriminated against must be in a competitive relationship with the product purchased [by the government].* In the case before us, the product being procured is electricity, whereas the product discriminated against for reason of its origin is generation equipment. These two products are not in a competitive relationship. None of the participants has suggested otherwise, much less offered evidence to substantiate such proposition. Accordingly, the discrimination relating to generation equipment contained in the FIT Program and Contracts is not covered by the derogation of Article III:8(a) of GATT 1994. We therefore... find that the Minimum Required Domestic Content Levels cannot be characterized as “law, regulations, or requirements governing the procurement by governmental agencies” of electricity within the meaning of Article III:8(a) of GATT 1994.<sup>80</sup>

78. Like the measures at issue in *Canada – Renewable Energy / Feed-In Tariff Program*, under India’s JNNSM Programme, “the product being procured [by India] is electricity, whereas the product discriminated against for reason of its origin is generation equipment,” *i.e.*, solar cells and modules. Neither solar cells nor solar modules are in a competitive relationship with electricity. Accordingly, the discrimination relating to solar cells and modules under the JNNSM Programme is not covered by the derogation of Article III:8(a) of GATT 1994.

79. Therefore, just as with the local content requirements at issue in *Canada – Renewable Energy / Feed-In Tariff Program*, the JNNSM Programme’s domestic content requirements “cannot be characterized as ‘law, regulations, or requirements governing the procurement by governmental agencies’” of electricity. Rather, the JNNSM Programme measures and the domestic content requirements applicable to solar cells and modules are not exempt under Article III:8(a) of GATT 1994 from the national treatment obligations in Article III:4.

**B. The JNNSM Programme measures are Trade-Related Investment Measures Inconsistent with India’s Obligation under Article 2.1 of the TRIMs Agreement**

80. The requirements under the JNNSM Programme measures are also inconsistent with Article 2.1 of the TRIMs Agreement because they are trade-related investment measures (“TRIMs”) that are inconsistent with the provisions of Article III of the GATT 1994, as the United States has established above. Domestic content requirements, such those established under Phases I and II of the JNNSM Programme, are explicitly listed as a WTO-inconsistent TRIMs in Annex 1(a) of the TRIMs Agreement.

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<sup>80</sup> *Canada – Renewable Energy / Feed-In Tariff Program (AB)*, para. 5.79 (emphasis added).

81. Article 2.1 of the TRIMs Agreement provides:

Without prejudice to other rights and obligations under GATT 1994, *no Member shall apply any TRIM that is inconsistent with the provisions of Article III or Article XI of GATT 1994* (emphasis added).

82. As noted by the panel in *Indonesia – Autos*: “By its terms, Article 2.1 requires two elements to be shown to establish a violation thereof: first, the existence of a TRIM; second, that TRIM is inconsistent with Article III or Article XI of GATT.”<sup>81</sup>

83. Accordingly, a breach of Article 2.1 of the TRIMs Agreement can be established by demonstrating: (i) the existence of an investment measure related to trade in goods (*i.e.*, a TRIM); and (ii) the inconsistency of that measure with Article III the GATT 1994.

84. As the United States has established above that the JNNSM Programme is inconsistent with Article III:4 of the GATT 1994, the remaining question is whether the relevant measures may be considered “investment measures related to trade in goods” – *i.e.*, TRIMs. It is clear that they are.

### 1. The JNNSM Programme measures are “investment measures”

85. The JNNSM Programme measures are “investment measures” because their objective is to encourage the production of solar cells and modules in India. In *Canada – Renewable Energy / Feed-In Tariff Program*, for example, the panel found that the measures at issue constituted “investment measures,” as those measures had the objective of encouraging the production of renewable energy generation equipment in Ontario. The *Canada – Renewable Energy / Feed-In Tariff Program* panel noted that “one of the aims of the FIT Programme, and the FIT and microFIT Contracts, is to encourage investment in the local production of equipment associated with renewable energy generation in the Province of Ontario.”<sup>82</sup> Specifically, for example, the objectives of the FIT Programme included enabling “new green industries through new investment and job creation” and the provision of “incentives for investment in renewable energy technologies”.<sup>83</sup>

86. Similarly, the aim of the JNNSM Programme, as explicitly reflected in relevant JNNSM Programme documents, is to incentivize the production of solar power generation equipment in India. For example, Section 1.2 of the Phase I (Batch 1) RfS document<sup>84</sup> states:

The Objective of the Jawaharlal Nehru National Solar Mission (JNNSM)...is to establish India as a global leader in solar energy by creating the policy conditions

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<sup>81</sup> See *Indonesia – Autos (Panel)*, para. 14.64.

<sup>82</sup> *Canada – Renewable Energy / Feed-In Tariff Program (Panel)*, para. 7.109.

<sup>83</sup> *Id.*

<sup>84</sup> *Request for Selection Document for New Grid Connected Solar Photo Voltaic Projects Under Phase I of JNNSM*, section 1.2 (emphasis added) (US-15).

for its diffusion across the country as quickly as possible. *The Mission has set a target of 20,000 MW...JNNSM recognizes that indigenous manufacturing capacity for solar power equipment is vital, if that goals of 20,000 MW of solar power is to be met by 2022. Therefore, it becomes necessary to introduce a criteria for ensuring domestic content for Projects in first phase.*

87. The *Phase II Policy Document*<sup>85</sup> is equally explicit in expressing the JNNSM Programme's goal of encouraging domestic production of solar power equipment, stating at Section 2.6:

A domestic solar manufacturing base to provide solar components is an important part of India's aspirations to become a major global solar player. The mission aims to establish country as a solar manufacturing hub, to feed both a growing domestic industry as well as global markets. *The solar mission, while leveraging other government policies, looks to provide favorable regulatory and policy conditions to develop domestic manufacturing of low-cost solar technologies, with the support of significant capital investment and technical innovation.*

88. Moreover, each of the Guidelines cite "promot[ing] manufacturing in the solar sector, in India" as an objective of the JNNSM Programme.<sup>86</sup>

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<sup>85</sup> *Phase II Policy Document, JNNSM*, p. 28 (emphasis added) (US-3).

<sup>86</sup> See, e.g., *Guidelines for Selection of New Grid Connected Solar Power Projects*, Section 1.2 (US-5), and *Guidelines for Selection of New Grid Connected Solar Power Projects, Batch II*, Section 1.2 (US-6):

The objectives of these guidelines are: 1. To Facilitate a quick start up of the JNNSM, 2. To ensure serious participation for projects to be selected under JNNSM, 3. To facilitate speedier implementation of the new projects to be selected to meet the Phase I target of JNNSM; 4. To enhance confidence in the Project Developers and; 5. To promote manufacturing in the solar sector, in India.

And *Guidelines for Implementation of Scheme for Setting up of 750 MW Grid-Connected Solar PV Power Projects Under Batch-I, Jawaharlal Nehru National Solar Mission*, Section 1.2 (US-7)., which reads

The objectives of these guidelines are:

1. To enable scaling up of size of projects thereby leading to economics of scale of projects under JNNSM,
2. To facilitate speedier implementation of the solar power projects to be selected to meet the Phase-II Batch-I target of JNNSM;
3. To enhance confidence in the Project Developers and
4. *To promote manufacturing in the solar sector, in India.*
5. To create good business model and systems for various state Governments and DISCOMs to take forward; and
6. To facilitate fulfilment of RPO requirement of the obligated entities.

## 2. The JNNSM Programme measures are “related to trade in goods”

89. The JNNSM Programme measures are “related to trade in goods” because those measures impose domestic content requirements related to the purchase, sale, or use of goods. As the panel reasoned in *Indonesia – Autos*, for example, domestic content requirements are “necessarily ‘trade-related’ because such requirements, by definition, always favour the use of domestic products over imported products, and therefore affect trade”.<sup>87</sup>

90. Here, as demonstrated above, the JNNSM Programme measures impose domestic content requirements with respect to the use of solar cells and modules. The measures incentivize the use of domestic goods over imported goods. As such, the measures are “related to trade in goods.”

## 3. Conclusion: The JNNSM Programme measures are inconsistent with Article 2.1 of the TRIMs Agreement

91. For the aforementioned reasons, the JNNSM measures are “investment measures related to trade in goods.” As they are also inconsistent with Article III of the GATT 1994, the United States has demonstrated that the JNNSM measures are inconsistent with Article 2.1 of the TRIMs Agreement.

92. This conclusion is further confirmed by referring to the Illustrative List contained in the Annex to the TRIMs Agreement. Annex 1(a) provides:

TRIMs that are inconsistent with the obligation of national treatment provided for in paragraph 4 of Article III of GATT 1994 include those which are mandatory or enforceable under domestic law or under administrative rulings, or compliance with which is necessary to obtain an advantage, and which require:

- (a) the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production . . . (emphasis added)

93. As stated by the panel in *Canada – Renewable Energy / Feed-In Tariff Program*, “Where [] a measure has the characteristics that are described in Paragraph 1(a) of the Illustrative List, it follows from the clear language of this provision that it will be in violation of Article III:4 of the GATT 1994, and thereby also Article 2.1 of the TRIMs Agreement.”<sup>88</sup> The JNNSM Programme measures have “the characteristics that are described in Paragraph 1(a).” Under the JNNSM Programme’s domestic content requirements, SPDs are required to purchase or use solar cells and modules made in India (*i.e.*, “products of domestic origin”) in order to enter into and

<sup>87</sup> *Indonesia – Autos (Panel)*, para. 14.82.

<sup>88</sup> *Canada – Renewable Energy / Feed-In Tariff Program (Panel)*, para. 7.120 (emphasis added).

maintain PPAs under the JNNSM Programme.<sup>89</sup> It therefore follows that the domestic content requirements under the JNNSM Programme are inconsistent with Article 2.1 of the TRIMs Agreement and the terms under Annex 1(a) of the same.

#### IV. CONCLUSION

94. For the reasons stated above, the United States requests that the Panel make the following findings:

- the domestic content requirements contained in the JNNSM Programme measures, including both Phase I and Phase II and individually executed PPAs for solar power projects, accord less favorable treatment to imported solar cells and modules than accorded to like products of Indian origin, inconsistent with Article III:4 of the GATT 1994; and
- the domestic content requirements contained in the JNNSM Programme measures, including both Phase I and Phase II and individually executed PPAs for solar power projects, constitute trade-related investment measures inconsistent with the provisions of Article III of the GATT 1994, and are therefore inconsistent with Article 2.1 of the TRIMs Agreement.

95. Accordingly, the United States respectfully requests the Panel to recommend that India bring the domestic content requirements under the JNNSM Programme measures, including both Phase I and Phase II and individually executed PPAs for solar power projects, into conformity with the GATT 1994 and the TRIMs Agreement, pursuant to Article 19.1 of the *Understanding on Rules and Procedures Governing the Settlement of Disputes* (“DSU”).

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<sup>89</sup> Entering into a PPA under the JNNSM Programme also may offer advantages such as obtaining long term guaranteed tariff rates and other benefits, such as Viability Gap Financing.