



## GEF-6 GEF SECRETARIAT REVIEW FOR FULL-SIZED/MEDIUM-SIZED PROJECTS THE GEF/LDCF/SCCF TRUST FUND

|  |  |                              |                |
|--|--|------------------------------|----------------|
| GEF ID:                                    | 9279   |                              |                |
| Country/Region:                            | Turkmenistan   |                              |                |
| Project Title:                             | Sustainable Cities: Integrated Green Urban Development in Ashgabat and Awaza |                              |                |
| GEF Agency:                                | UNDP   | GEF Agency Project ID:       | 5452 (UNDP)    |
| Type of Trust Fund:                        | GEF Trust Fund   | GEF Focal Area (s):          | Climate Change |
| GEF-6 Focal Area/ LDCF/SCCF Objective (s): | CCM-2 Program 3;   |                              |                |
| Anticipated Financing PPG:                 | \$120,000  | Project Grant:               | \$6,060,046    |
| Co-financing:                              | \$57,100,000   | Total Project Cost:          | \$63,280,046   |
| PIF Approval:                              | May 04, 2016   | Council Approval/Expected:   | June 09, 2016  |
| CEO Endorsement/Approval                   |  | Expected Project Start Date: |                |
| Program Manager:                           | Ming Yang  | Agency Contact Person:       | Marcel Alers   |

| PIF Review          |  |  |                                      |
|---------------------|--|--|--------------------------------------|
| Review Criteria     | Questions  | Secretariat Comment  | Agency Response                      |
| Project Consistency | 1. Is the project aligned with the relevant GEF strategic objectives and results framework? <sup>1</sup>                                       | MY 8/10/2015<br>Yes. It is aligned with Program 3 of Objective 2: To promote integrated low-carbon emission urban systems. |                                      |
|                     | 2. Is the project consistent with the recipient country's national strategies and plans or reports and assessments under relevant conventions? | MY 8/10/2015<br>To be commented.<br><br>MY 8/14/2015<br><br>Yes.   |                                      |
| Project Design      | 3. Does the PIF sufficiently indicate the  | MY 8/10/2015   | Addressed. The following summary has |

<sup>1</sup> For BD projects: has the project explicitly articulated which Aichi Target(s) the project will help achieve and are SMART indicators identified, that will be used to track the project's contribution toward achieving the Aichi Target(s)?

## PIF Review

| Review Criteria | Questions   | Secretariat Comment   | Agency Response  |
|-----------------|---|---|--|
|                 | <p>drivers<sup>2</sup> of global environmental degradation, issues of sustainability, market transformation, scaling, and innovation?</p> | <p>To be commented.</p> <p>MY 8/14/2015</p> <p>Not completed at this time.</p> <p>Please write one short paragraph to summarize the problems in urban development such as rapid urbanization, environmental degradation, barriers to sustainable cities, and how this project will resolve these issues and unlock these barriers.</p> <p>The justification on innovation, sustainability, market transformation, scaling-up is very weak. Please write on paragraph for each of the above topics:</p> <p>1. Innovation: The Agency may focus on integrated approach on managing energy, water, and transport issues (not focus on "technical solutions and management practices" as indicated on page 18 of the PIF;</p> <p>2. Sustainability: Please describe how the GEF invested assets such as LED, EE hotel guest rooms and other demonstration facilities and policy decrees will continue operating after</p> | <p>been provided.</p> <p>The steep and steady rise of the urban population in Turkmenistan poses new and growing concerns about environmental impact. The sources of these impacts are varied – rising use of motor vehicles, expansion of public lighting, consumption of resources by new residential and tourist zones, and even increases in ambient temperature from the urban heat island effect. Likewise, the impacts themselves range from local pollution and congestion, to depletion of scarce national water resources, to increases in greenhouse gas emissions and contributions to global climate change. There is ample technical potential for introduction of sustainable urban development to Turkmenistan, but institutional and economic barriers that favor growth and consumption without regard to sustainability, as well as insufficient technical know-how regarding sustainable urban best practices, need to be addressed. The proposed UNDP/GEF project seeks to remove these barriers through an integrated program of activities in Turkmenistan's two most visible, rapidly developing cities, Ashgabat and Awaza, thereby unlocking this technical potential and achieving significant GHG reductions and other</p> |

<sup>2</sup> Need not apply to LDCF/SCCF projects.

## PIF Review

| Review Criteria | Questions | Secretariat Comment  | Agency Response   |
|-----------------|-----------|--|---|
|                 |           | <p>the GEF project implementation is over.</p> <p>3. Scaling-up: Please justify the scaling-up of the results in other cities (Dashoguz, Mary and Balkanabat) without any financial support from the GEF.</p> <p>4. Market transformation: Please describe how the GEF project will impact the country's transformation path from the current situation to a low-carbon sustainable development mode.</p> <p>MY 9/3/2015</p> <p>Comments were addressed and issues were cleared.</p> | <p>environmental benefits.</p> <p>Innovative nature of proposed integrated approach to sustainable urban development has been emphasized and explained, as follows:</p> <p>Innovation: The project will introduce an integrated approach to urban development, as well as specific technical innovations and best practices in urban energy, water, and transport sectors. Both the integrated approach and the best practices are new and innovative not only for Turkmenistan, but in the broader Central Asian region. Specifically, the novelty of the proposed integrated approach for Ashgabat and Awaza lies in its focus on promoting public spaces that maximize environmental sustainability and attractiveness to cities' residents and visitors via integrated and closely coordinated planning and implementation of "hard" and "soft" investment in key urban sub-sectors (as opposed to a more "traditional" approach whereby urban investments in transport, lighting, built environment, etc. are being planned and undertaken independently from each other). The project will promote both horizontal integration between various urban sub-sectors (managed locally by different departments in the municipalities of Ashgabat and Awaza, such as transport, lighting, communal services), as well as</p> |

| PIF Review      |           |                     |   |
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| Review Criteria | Questions | Secretariat Comment | Agency Response   |
|                 |           |                     | <p>vertical inter-governmental integration (for sectors which planned centrally, such as tourism and energy).</p> <p>Sustainability: The project will result in a nationwide transformation of urban planning, investment, and management practices in Turkmenistan, from its current mode focusing on the speed, magnitude, and impressiveness of economic growth, to new paths to integrated, low-carbon sustainable urban development, lasting permanently beyond the project period. Sustainability of this transformation beyond the end of the project will be assured in several ways. GEF funds and government co-financing will be used for investment in long-lasting infrastructure and equipment such as street lighting fixtures, grid technology, built measures in hotels, buses, and transport lanes. To maximize sustainability of this investment, the project will primarily rely on government co-financing with GEF funds covering only incremental part (i.e. in the ratio of approximately 1:10). Also, in addition to the physical infrastructure itself, the project will also create lasting human capacity to maintain this infrastructure via training among managers and decision-makers, as well as enduring institutional support via adoption of formal government policies, as well as</p> |

| PIF Review      |           |                     |  |
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| Review Criteria | Questions | Secretariat Comment | Agency Response  |
|                 |           |                     | <p>management practices among hotels and agencies responsible for transportation and lighting. The project will also establish environmental sustainability as core parts of the "brand," or marketing identity, of both cities, further assuring that the cities will continue green practices even after the project period. Ultimately, this branding and the civic pride that comes with it may well turn out to be the most powerful instrument for long-term sustainability of transformed urban development paths in the country. (A detailed post-project transition strategy will be fully elaborated during the project period.)</p> <p>Scaling-up: Scale-up of results will occur beyond Ashgabat and Awaza in Turkmenistan's other velayat capitals, Turkmenabat (population about 280,000), Dashoguz (250,000), Mary (125,000), and Balkanabat (95,000), as well as other major population centers. This scale-up will be facilitated under Component 3 of the project with minimal GEF funding (300,000 US\$) because demonstrations implemented by the project in Ashgabat and Awaza will provide the technical and financial justification for application of state budget funds for replication, in connection with the normal state budget allocations for development, operation, and maintenance of urban services and</p> |

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| Review Criteria | Questions | Secretariat Comment | Agency Response   |
|                 |           |                     | <p>infrastructure in these other cities. Specifically, Activity 3.1 will provide robust MRV data to justify the cost-effectiveness of proposed integrated approach for investment in sustainable urban development. Secondly, under Activity 3.2. the project will support knowledge-sharing and public-outreach to other cities in Turkmenistan about integrated approach to sustainable urban development using Ashgabat and Awaza as case-studies and building on and complementing the government's PR efforts to promote the two cities as examples of sustainability, innovation, and social responsibility. Lastly, within the Activity 3.3, the project will help design and facilitate the adoption of relevant policies in support of integrated and scaled-up green urban practices, including assignment of clear mandates at central/local level for sustainable urban development, introduction of mandatory provisions, requirements and standards for planning and implementation of state-funded investments in cities based on integrated approach.</p> <p>For Market transformation, done. The following paragraph has been added. The project will result in a nationwide transformation of urban planning, investment, and management practices in Turkmenistan, from its current mode</p> |

## PIF Review

| Review Criteria | Questions  | Secretariat Comment  | Agency Response  |
|-----------------|--|--|--|
|                 |  |  | focusing on the speed, magnitude, and impressiveness of urban growth characterised by high resource inefficiency and negative environmental impacts towards new paths to integrated, low-carbon sustainable urban development. This transformation will be ensured via a combination of bottom-up interventions demonstrating integrated approaches to sustainable urban development in two key cities, Ashgabat and Awaza, and the nation-wide work to introduce enabling policy framework and raise awareness about urban sustainability among city authorities, residents and visitors.   |
|                 | 4. Is the project designed with sound incremental reasoning? | <p>MY 8/10/2015<br/>To be commented.</p> <p>MY 8/14/2015<br/>Not at this time.</p> <p>The proposed alternative scenario at Section 3 on page 14 is too generic. Please put quantitative target numbers in the project alternative scenario. For example, please consider (1) reducing energy intensity or carbon intensity in buildings by 5% or 10% in five years due to integrated solutions; (2) reducing energy consumption in street lighting by 20% with smart grid technologies; (3) increasing the share of LED lamps by</p> | <p>Comment has been addressed. The following specific targets are proposed and incorporated in the description of the proposed alternative scenario and project result framework.</p> <p>Component 1, Ashgabat:</p> <ul style="list-style-type: none"> <li>- Deployment of light-emitting diodes (LEDs) and/or other efficient or renewable-energy-powered light sources in 100 percent of newly lit areas and 50 percent of areas currently lit with inefficient lamps and fixtures along streets and other public areas;</li> <li>- Application of smart grid technology in public lighting networks leads to 20 percent energy saving;</li> <li>- Increased share of LEDs in public buildings in Ashgabat by 30 percent;</li> </ul> |

## PIF Review

| Review Criteria | Questions | Secretariat Comment  | Agency Response   |
|-----------------|-----------|--|---|
|                 |           | <p>30% in buildings (not only in street lighting) with the new energy policy and knowledge-sharing, etc.; (4) saving water and energy uses by 10% in cities through sustainable tourism practices; and etc.</p> <p>MY 9/3/2015</p> <p>Comments were addressed and issues were cleared.</p> | <p>- Establishment of new lanes for bicycles and public transit on selected key corridors (at least 20 km) and other measures to reduce motor vehicle congestion in Ashgabat, leading to a reduction of 10 percent in projected vehicle-hours of driving private cars in the city;</p> <p>- Deployment of at least three hybrid public buses in Ashgabat, saving 30 percent in fuel relative to conventional diesel-powered buses;</p> <p>- Planting of green spaces over at least 120 hectares and implementation of green and high-albedo roofs in Ashgabat lead to a documented reduction in ambient temperature of 1 degree Celsius, with commensurate reduction in cooling degree days.</p> <p>Component 2, Awaza:</p> <p>- Reducing energy use in new hotel buildings by 50- 65 percent per square meter compared to other hotels in Awaza due to integrated solutions;</p> <p>- Minimization of energy use, water consumption, and waste at all hotels in Awaza (15 at present, with more planned), leading to a reduction of both carbon intensity and water consumption by 10 percent through sustainable tourism practices</p> <p>- Deployment of LEDs and/or other efficient or renewable-energy-powered light sources in 100 percent of newly lit</p> |



## PIF Review

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|-----------------|---|--|--|
|                 |   |  | <p>areas and 50 percent of areas currently lit with inefficient lamps and fixtures along streets and other public areas of Awaza - Increased fuel efficiency of at least 50 percent of the existing fleets of taxis, tour buses, and/or airport shuttles in Awaza, by 30 percent compared to baseline.</p>   |
|                 | 5. Are the components in Table B sound and sufficiently clear and appropriate to achieve project objectives and the GEBs? | <p>MY 8/10/2015<br/>To be commented.</p> <p>MY 8/14/2015<br/>Not at this time.</p> <p>Please cleared indicate if all or part of city roads will be used for the establishment of new lanes for bicycles and public transit in Ashgabat (see the project output in Table B on page 1). Please also indicate the number of greening spaces in square meters for the project output of Component 1 (on page 2).</p> <p>A budget for project M&amp;E can be budgeted now. It must be budgeted at the CEO ER stage.</p> <p>MY 9/3/2015<br/>Comments were addressed and issues were cleared.</p> | <p>Addressed.</p> <p>New lanes for bicycles and public transit will be set-up at selected key avenues in Ashgabat, major routes will be selected for this purpose with a total length of at least 20 km. Additional target and clarifications have been added in the result framework and description of Component 1.</p> <p>The project will target to add at least 120 hectares (cca 1.2 sq km) of green space in and around Ashgabat. Additional target has been introduced in the project result framework under Component 1.</p> <p>The budget line for M&amp;E has been introduced in the Table B, Project Results Framework. It will be budgeted in detail at the CEO ER stage.</p> |
|                 | 6. Are socio-economic aspects, including relevant gender elements, indigenous people, and CSOs                            | <p>MY 8/10/2015<br/>To be commented.</p>   | <p>The project's benefits will extend to all ethnic nationalities within Turkmenistan's cities, including the majority indigenous</p>  |

| PIF Review                       |  |  |   |
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| Review Criteria                  | Questions  | Secretariat Comment  | Agency Response   |
|                                  | considered?  | <p>MY 8/14/2015<br/>Not at this time.<br/>Please indicate if this project is relevant to indigenous peoples. Please specify how CSOs' interest will be considered.</p> <p>MY 9/3/2015<br/>Comments were addressed and issues were cleared.</p>                         | <p>Turkmen population as well as Uzbeks, Russians, and others. Civil society organizations (CSOs) in Turkmenistan are limited, consisting mostly of small groups focusing on poverty relief and delivery of professional services such as legal advice and accounting. Environmental NGOs are notably few, and those that do exist focus entirely on wildlife and protected areas, not sustainability or urban development. Nevertheless, the project will make concerted efforts to outreach to and engage CSOs, specifically under Component 3 for conducting nationwide campaigns on urban sustainability. The project would expand the scale and scope of such campaigns to cover promotion of energy-efficient behavior, waste management etc.</p> |
| <b>Availability of Resources</b> | 7. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply): |  |   |
|                                  | <ul style="list-style-type: none"> <li>The STAR allocation?</li> </ul>   | <p>MY 8/10/2015<br/>Not at this time.</p> <p>Approval of this PIF would exceed the total budget allowed for this focal area/country STAR allocation because of other pending PIFs.</p> <p>MY 8/14/2015<br/>Yes.<br/>Comments were address and the PIF was revised.</p> |   |

## PIF Review

| Review Criteria        | Questions  | Secretariat Comment   | Agency Response |
|------------------------|--|---|-----------------|
|                        | <ul style="list-style-type: none"> <li>The focal area allocation?</li> </ul>                                   | <p>MY 8/10/2015<br/>Not at this time.</p> <p>Approval of this PIF would exceed the total budget allowed for this focal area/country STAR allocation because of other pending PIFs.</p> <p>MY 8/14/2015<br/>Yes.<br/>Comments were address and the PIF was revised.</p>  |                 |
|                        | <ul style="list-style-type: none"> <li>The LDCF under the principle of equitable access</li> </ul>             | <p>MY 8/14/2015<br/>n/a</p>   |                 |
|                        | <ul style="list-style-type: none"> <li>The SCCF (Adaptation or Technology Transfer)?</li> </ul>                | <p>MY 8/14/2015<br/>n/a</p>   |                 |
|                        | <ul style="list-style-type: none"> <li>Focal area set-aside?</li> </ul>  | <p>MY 8/14/2015<br/>n/a</p>   |                 |
| <b>Recommendations</b> | <p>8. Is the PIF being recommended for clearance and PPG (if additional amount beyond the norm) justified?</p> | <p>MY 8/10/2015<br/>Not at this time.</p> <p>Approval of this PIF would exceed the total budget allowed for this focal area/country STAR allocation because of other pending PIFs. Please reduce the project budget to avoid this issue.</p> <p>Please also provide endorsement letter from the OFP of Turkmenistan.</p> <p>MY 8/14/2015<br/>Not at this time.<br/>Please address comments in Boxes: 3,</p> |                 |

| PIF Review         |                                  |  |                 |
|--------------------|----------------------------------|--|-----------------|
| Review Criteria    | Questions                        | Secretariat Comment  | Agency Response |
|                    |                                  | <p>4, 5, and 6.</p> <p>MY 9/3/2015<br/>All comments were addressed and issues were cleared.</p> <p>The Program Manager recommends CEO PIF clearance.</p> |                 |
| <b>Review Date</b> | Review                           | August 10, 2015  |                 |
|                    | Additional Review (as necessary) | August 14, 2015  |                 |
|                    | Additional Review (as necessary) | September 03, 2015   |                 |

| CEO endorsement Review              |  |  |                                  |
|-------------------------------------|--|--|----------------------------------|
| Review Criteria                     | Questions  | Secretariat Comment at CEO Endorsement   | Response to Secretariat comments |
| <b>Project Design and Financing</b> | 1. If there are any changes from that presented in the PIF, have justifications been provided? | <p>MY 7/31/2017</p> <p>There is not any significant change from PIF to the CEO ER. Some changes to adapt fast advancement of energy technologies such as application of LEDs are reasonable.</p> |                                  |

## CEO endorsement Review

| Review Criteria | Questions  | Secretariat Comment at CEO Endorsement   | Response to Secretariat comments |
|-----------------|--|--|----------------------------------|
|                 | 2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs?  | MY 7/31/2017<br>Yes.   |                                  |
|                 | 3. Is the financing adequate and does the project demonstrate a cost-effective approach to meet the project objective?   | MY 7/31/2017<br>Yes.   |                                  |
|                 | 4. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to enhance climate resilience) | MY 7/31/2017<br>Yes. It is stated in the UNDP project document (pages 17-20).  |                                  |
|                 | 5. Is co-financing confirmed and evidence provided?  | MY 7/31/2017<br>Not at this time. The co-financing letters from the government of Turkmenistan are not clear and the numbers in the letters do not match these in Table C on page 3 of the CEO ER document. Please ask the government to issue new letters using the format of co-financing letter of the UNDP that was signed by Elena Panova.<br><br>MY 8/28/2017<br>Yes, comments were address and issues were cleared. |                                  |
|                 | 6. Are relevant tracking tools completed?  | MY 7/31/2017<br>Yes.   |                                  |
|                 | 7. <i>Only for Non-Grant Instrument:</i> Has a reflow calendar been  | MY 7/31/2017<br>N/A  |                                  |

| CEO endorsement Review |   |  |                                  |
|------------------------|---|--|----------------------------------|
| Review Criteria        | Questions   | Secretariat Comment at CEO Endorsement   | Response to Secretariat comments |
|                        | presented?  |  |                                  |
|                        | 8. Is the project coordinated with other related initiatives and national/regional plans in the country or in the region? | MY 7/31/2017<br>Yes, the project is consistent with the NDC of the country to the UNFCCC.  |                                  |
|                        | 9. Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?           | MY 7/31/2017<br>Yes, on pages 12-13.   |                                  |
|                        | 10. Does the project have descriptions of a knowledge management plan?  | MY 7/31/2017<br>Yes, on pages 11.  |                                  |
| Agency Responses       | 11. Has the Agency adequately responded to comments at the PIF <sup>3</sup> stage from:                                   |  |                                  |
|                        | • GEFSEC  | MY 7/31/2017<br>N/A  |                                  |
|                        | • STAP  | MY 7/31/2017<br>Not at this time.<br>At the PIF stage, STAP commented as follows:" Minor issues to be considered during project design". See below. Please address these issues.<br><br>Further guidance from STAP<br>1. This project considers the deployment of solar-powered LEDs and cycle lanes and public transit corridors plus the use of hybrid buses |                                  |

<sup>3</sup> If it is a child project under a program, assess if the components of the child project align with the program criteria set for selection of child projects.

## CEO endorsement Review

| Review Criteria | Questions | Secretariat Comment at CEO Endorsement   | Response to Secretariat comments |
|-----------------|-----------|--|----------------------------------|
|                 |           | <p>and increasing green spaces in two case study cities that are rapidly developing. An energy efficient design of building for a model tourist hotel is planned in Awaza where vehicle fleets are to become more fuel efficient. The findings are to be published so other cities can follow. The three components together make good logical sense.</p> <p>Recognizing the importance of urban design is key for sustainable city designs. Incentivizing residents to accept a low-carbon lifestyle is more challenging. This project looks at both with emphasis on transport and lighting.</p> <p>2. Car ownership is increasing but the demonstration and use of electric vehicles, or indeed electric buses charged by renewable electricity was not considered in the proposal.</p> <p>3. Waste management is considered, but the link with anaerobic digestion, landfill gas or waste-to-energy conversion has not been made. These are all well-proven technologies in many cities around the world.</p> <p>4. The model hotel design is a good concept but, to give it international credibility it should be linked to gaining a LEED building rating</p> |                                  |

## CEO endorsement Review

| Review Criteria | Questions | Secretariat Comment at CEO Endorsement  | Response to Secretariat comments |
|-----------------|-----------|---|----------------------------------|
|                 |           | <p><a href="http://www.usgbc.org/LEED/">http://www.usgbc.org/LEED/</a> or to the Living Building Challenge <a href="http://livingfuture.org/lbc/certification">http://livingfuture.org/lbc/certification</a>.</p> <p>5. Most of the indicators to be used (Section 4) are measurable so therefore acceptable " although without water meters, it is not clear how water savings can be assessed.</p> <p>6. No information is provided to back-up the assessments of 249 kt CO2 avoided and 2.5 Mt indirect. What assumptions were made? What is the emissions factor for local grid electricity supply? This is a major gap in the proposal that should be filled at the CEO endorsement stage.</p> <p>7. The project proponents should liaise with the other sustainable city projects progressing under the GEF Cities IAP and use similar methodology and indicators as they evolve:<br/> <a href="https://www.thegef.org/gef/node/108261">https://www.thegef.org/gef/node/108261</a></p> <p>8. It would be useful and recommended to link the proposal to the INDC for Turkmenistan:<br/> <a href="http://www4.unfccc.int/submissions/INDC/Published%20Documents/Turkmenistan/1/INDC_Tu">http://www4.unfccc.int/submissions/INDC/Published%20Documents/Turkmenistan/1/INDC_Tu</a></p> |                                  |



## CEO endorsement Review

| Review Criteria       | Questions                           | Secretariat Comment at CEO Endorsement   | Response to Secretariat comments |
|-----------------------|-------------------------------------|--|----------------------------------|
|                       |                                     | rkmenistan.pdf<br><br>MY 8/28/2017<br>Yes, comments were address and issues were cleared.  |                                  |
|                       | • GEF Council                       | MY 7/31/2017<br>Yes.   |                                  |
|                       | • Convention Secretariat            | MY 7/31/2017<br>N/A  |                                  |
| <b>Recommendation</b> | 12. Is CEO endorsement recommended? | MY 7/31/2017<br>Not at this time.<br>Please address comments in Boxes: 5 and 11.<br><br>MY 8/28/2017<br>Yes, all comments were address and issues were cleared.<br><br>This project has been technically cleared and the PM recommends the CEO to endorse the project. |                                  |
| <b>Review Date</b>    | Review                              | July 31, 2017  |                                  |
|                       | Additional Review (as necessary)    | August 28, 2017  |                                  |
|                       | Additional Review (as necessary)    |  |                                  |