Chapter 7

Roadmap for Infrastructure Development

1. Upstream Sector

The most critical issue in Myanmar's upstream sector is ensuring that production from the offshore M-3 and A-6 blocks begins as scheduled. The prompt development of these sizable blocks will greatly help to ease the natural gas supply shortage in Myanmar. Thus, the Government of Myanmar and Myanma Oil and Gas Enterprise should work to realise production from the blocks as soon as possible.

It is also important to accelerate the development of Myanmar's onshore fields, despite the relatively small increase in production that would result. Since the pipeline linkage from the south to the north is out of service, increasing onshore production in the Magway region will play a central role in supplying gas to Myanmar's northern states. This study assumes a base case of 50% of the production target; however, the production volume should be raised as close as possible to the targeted level.

In addition to planned offshore and onshore development projects, exploration should also continue. Improving the conditions of the production sharing agreement will be seriously considered, and auctions of new acreage should continue as in the past.

2. Pipeline Sector

With regard to pipeline development, the government should first initiate a nationwide pipeline renovation and development plan. As natural gas demand grows, bottlenecks in the domestic pipeline may emerge at various locations. It is crucial to begin identifying these bottlenecks immediately, and to provide solutions to solve them by 2020. As most of the domestic pipeline was constructed in a bare condition (without a protective coating), there is a high risk of corrosion and leakage in many parts of the country's pipeline network. Reviewing the current condition of the pipeline network and identifying vulnerable parts of the network will form a central part of the pipeline renovation plan.

Although a linkage between the northern and southern pipeline networks is not immediately needed for operational purposes, it is urgently required to ensure supply security. Ongoing negotiations with an overseas export credit agency should be settled soon

and the feasibility study of the pipeline linkage should begin by 2020. The north–south pipeline will be completed by 2025.

Pipeline development in southern states such as Ayeyarwady and Mon will also be pursued after 2020 since demand from the power sector will accelerate in the 2020s.

3. Liquefied Natural Gas Sector

It is inevitable that Myanmar will rely on imported liquefied natural gas (LNG) at some point in the future. Even if the country halts exports and allocates all of its production to domestic needs, it will have to start importing LNG by 2030. Therefore, the government urgently needs to prepare to import LNG.

As of 2018, three gas-to-power projects have been proposed, with a combined receiving capacity of 3 million tonnes per annum. Although this may be sufficient to address the expected natural gas balance shortage by 2030, if there are any delays in the startup of new offshore and onshore production, Myanmar will have import more natural gas to maintain the supply–demand balance. Depending on how the demand for domestic natural gas develops, it may be worth considering installing another floating storage and regasification unit in Kyaukpyu. Regasified gas from Kyaukpyu would be utilised in northern states such as Magway or Mandalay, and any surplus could be exported to China via the existing export pipeline.

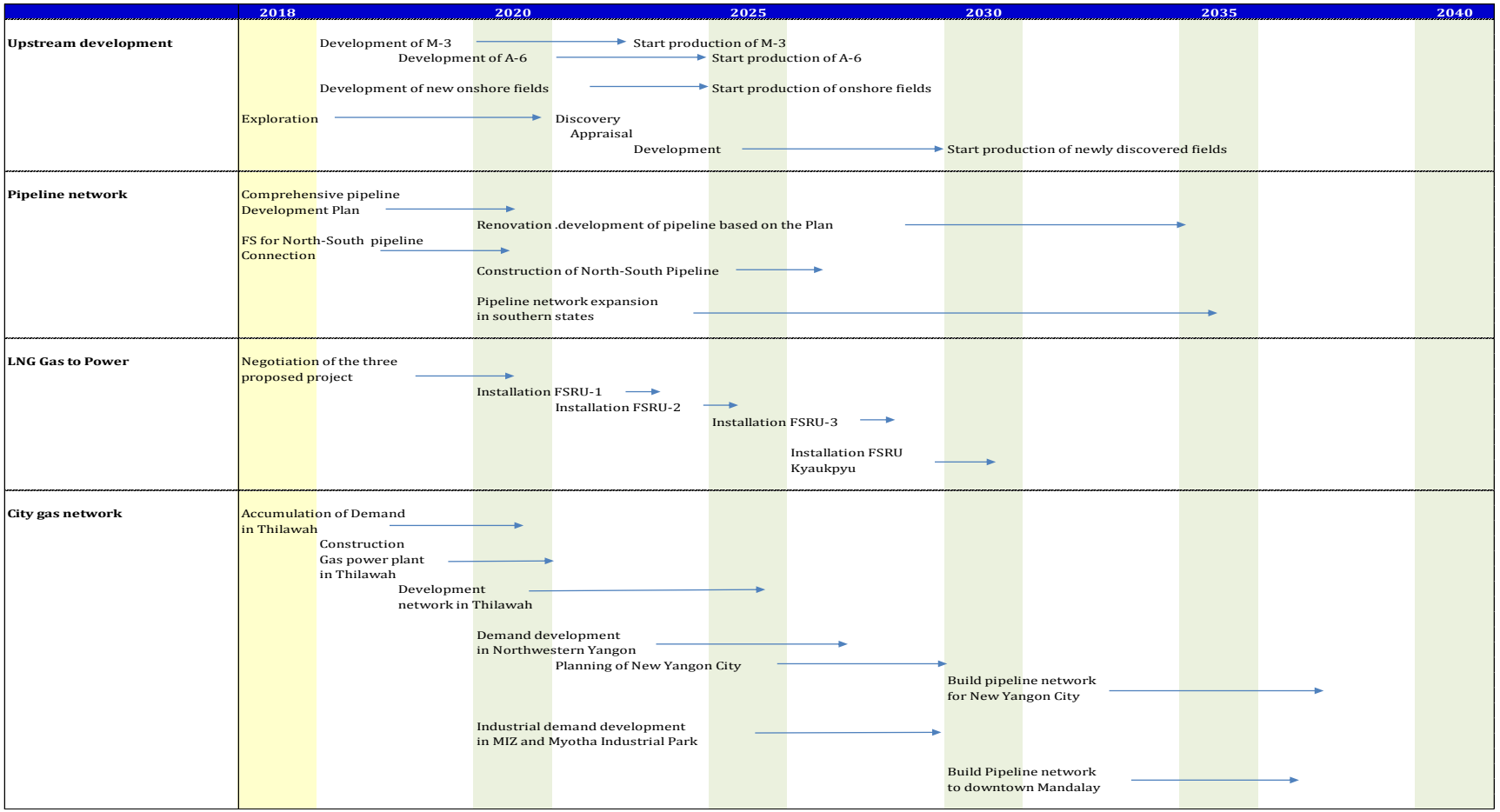
4. City Gas Sector

Regarding the industrial use of city gas in Yangon, the government should first promote and solidify the demand for natural gas in the Thilawah Special Economic Zone (SEZ). Swiftly establishing a gas power plant for the SEZ will help ease the power supply–demand balance in Yangon. This should be completed by the early 2020s when LNG imports will start, thus ensuring a sufficient supply of natural gas. Work on the pipeline should begin in 2025 to ensure a city gas supply to the SEZ.

It will also be necessary to extend the pipeline network to downtown Mandalay city. A feasibility study should kick off in 2020, and the actual pipeline construction should begin by 2025. At this stage, industrial and residential demand for natural gas is relatively low, and creating residential and commercial demand for natural gas in Myanmar will take time. As

it is currently difficult to construct a pipeline network in downtown Yangon, installing pipelines in newly developed areas such as New Yangon City will be a primary focus of demand development in the region. In Mandalay, demand from the residential and commercial sectors will be developed along with industrial demand. This will require well-coordinated infrastructure planning and demand development. Necessary actions and their specific timeframes (based on the observations made in chapters 1–6) are summarised in Table 7.1.

Table 7.1: Roadmap for the Development of Myanmar's Natural Gas Market



FS= Feasibility Study; FRSU= Floating Storage and Regasification Unit; LNG= Liquefied Natural Gas; MIZ= Mandalay Industrial Zone
Source: Authors.