

6MW Mini Hydro Power Plant Project in West Pasaman, West Sumatra

Indonesia JCM Webinar, July 26, 2022

Agenda

1. About NiX Group
2. JCM Project Scheme
3. About Tongar Hydro Power Plant
4. 3D Modeling / 4D Modeling
5. Project Risk
6. Tongar Hydro Power Plant - Current Status



Corporate Profile

Company
Name

NiX Co., Ltd.

Number of
employees

NiX : 223 / NiX Group total : 379

Head office

Toyama Head Office, Tokyo Head Office

Office

Domestic: Ishikawa, Osaka, Niigata
Overseas: Indonesia, Singapore

Business
Lineup

- **Infrastructure Engineering Services**
Planning, Research, Planning, Design and project supervision,
Design and construction of hydroelectric power generation facilities
- **IPP Business**
Domestic : 3 Hydro Power Plant / 1 Solar Power Plant
Overseas : 6MW (PLTA) Under Construction /
13MW (PLTA) Under Development



Overseas Company

Indonesia subsidiary

【Company Name】 PT. NIX INDONESIA CONSULTING

【Establishment】 April 2019

【Address】 Menara Jamsostek, North Tower, Lantai 14
Jl. Jend. Gatot Subroto Kav. 38
Kelurahan Kuningan Barat, Kecamatan
Mampang Prapatan Jakarta Selatan 12710



【Office building】



【Entrance】

Office location



Singapore (SPC)

- NiX Holdings Singapore Pte.Ltd
: Supervision, holding company
- ALAM NIX RENEWABLES PTE LTD
: Solar Power Project



Indonesia (SPC)

- PT. Lebong Sukses Energi
: 13MW (PLAT)
- PT. OptimaTirta Energy
: 6MW (PLTA)

Tongar Hydro Power Plant

PT. NIX INDONESIA CONSULTING

Domestic IPP business

Infrastructure engineering service

NiX Co., Ltd.

北陸・首都圏・関西



Seiko Survey Co., Ltd.

神奈川県横浜市



NiX Sanki Co., Ltd.

茨城県



Giken Consultants Co., Ltd.

神奈川県



Toko Sokken Co., Ltd.

神奈川県川崎市



Shinnetsu Denko Co., Ltd.

北海道



Giken Sekkei Co., Ltd.

福井県



ALAM NIX RENEWABLES PTE LTD

インドネシア太陽光発電

Overseas IPP business



NiX New Energy Co., Ltd.

湯谷川小水力発電所 843kw、NiX 八尾ソーラーパワー 1,260 kW

NiX Yuwaku Hydro Power Co., Ltd.

金沢ゆわく小水力発電所 160 kW

Hiraso River Small Hydro Power Co., Ltd.

平沢川小水力発電所 198 kW

PT. NiX Indonesia Consulting

海外水力発電開発



PT. Leborg Sukses Energi

スマトラケタウン水力発電所 13,000 kW



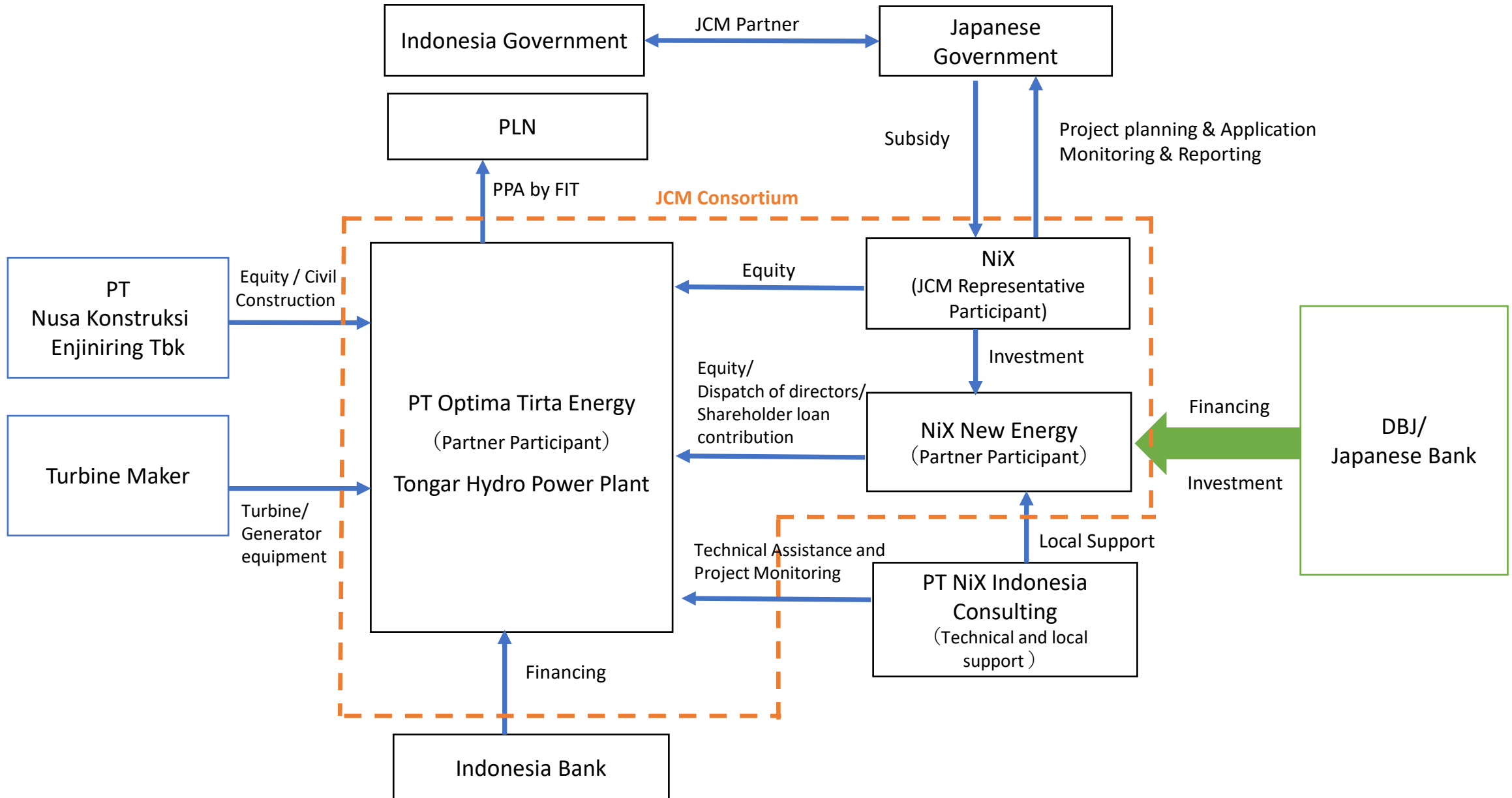
PT. OptimaTirta Energy

スマトラ Tongar 水力発電所 6,200 kW

NiX Holdings Singapore Pte.,Ltd

東南アジア開発拠点

JCM Project Scheme



Tongar Hydro Power Plant

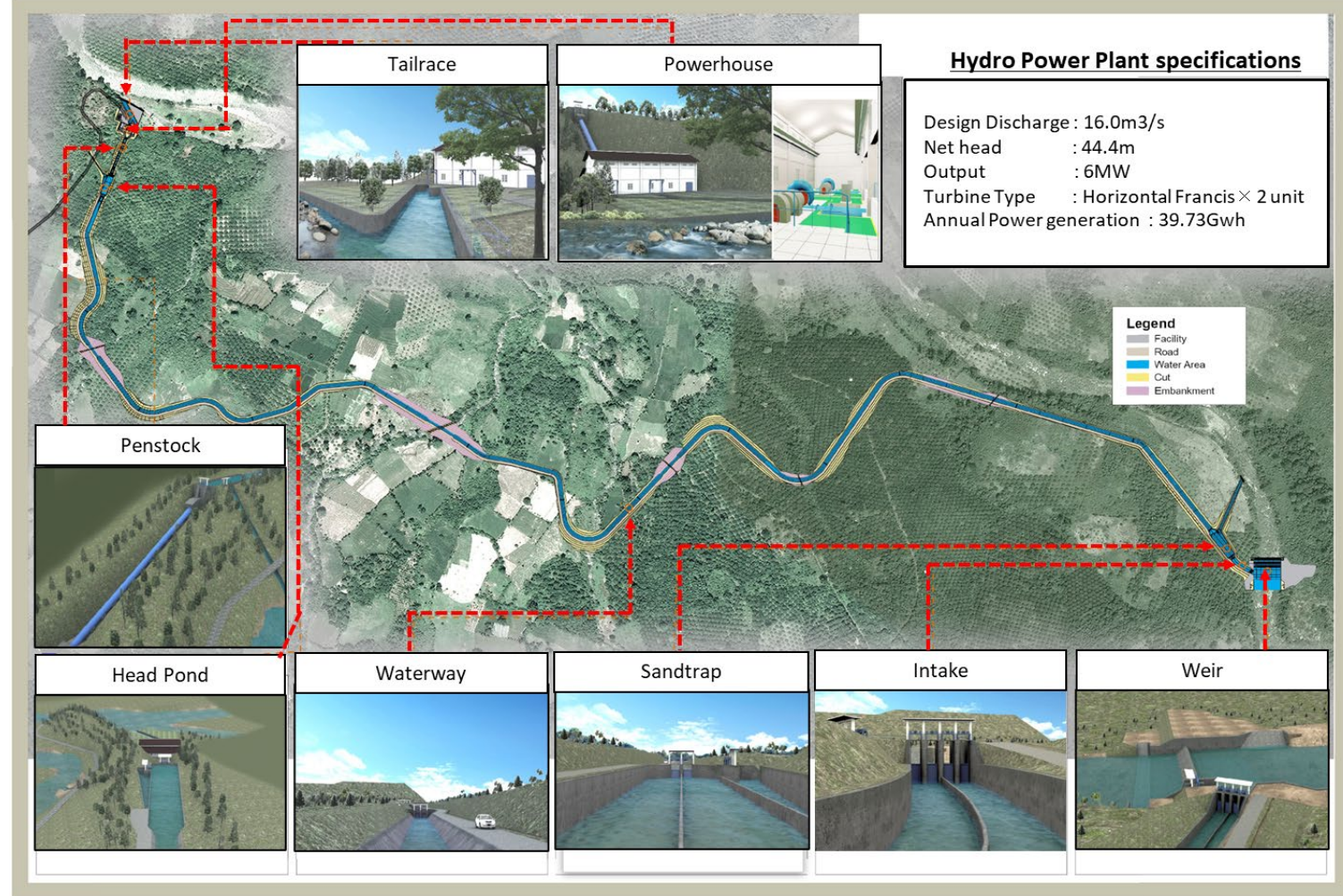


Annual Power Generation

39.73GWh

Expected GHG Emission Reductions

18,319 tCO₂/year



Tongar river

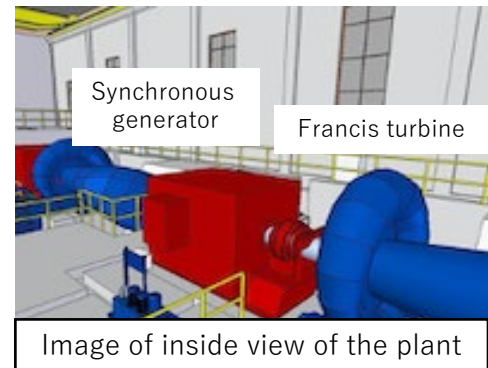


Intake



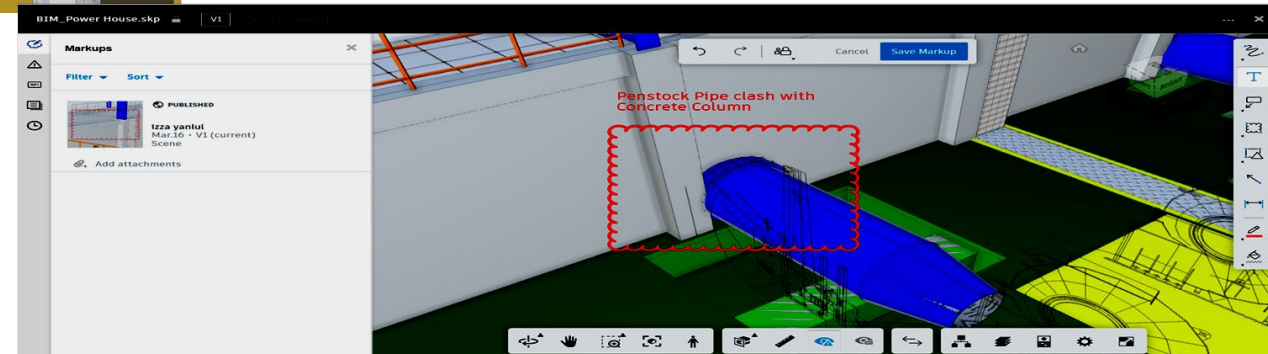
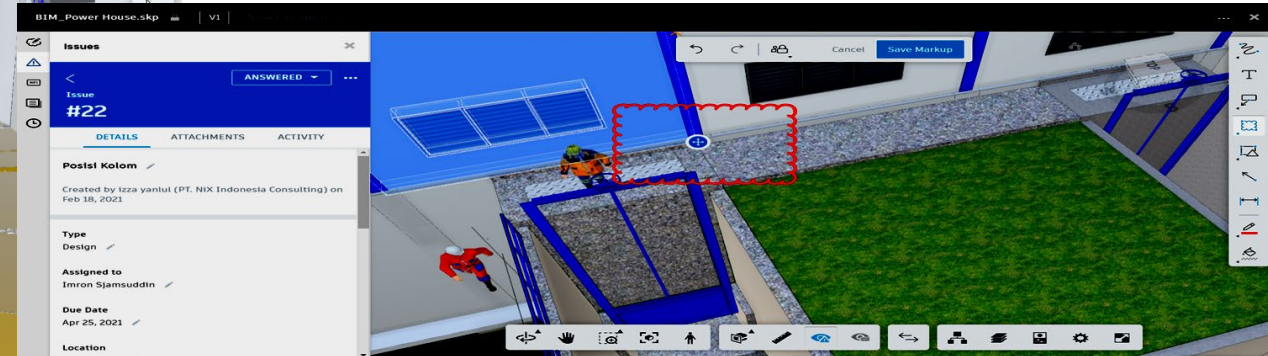
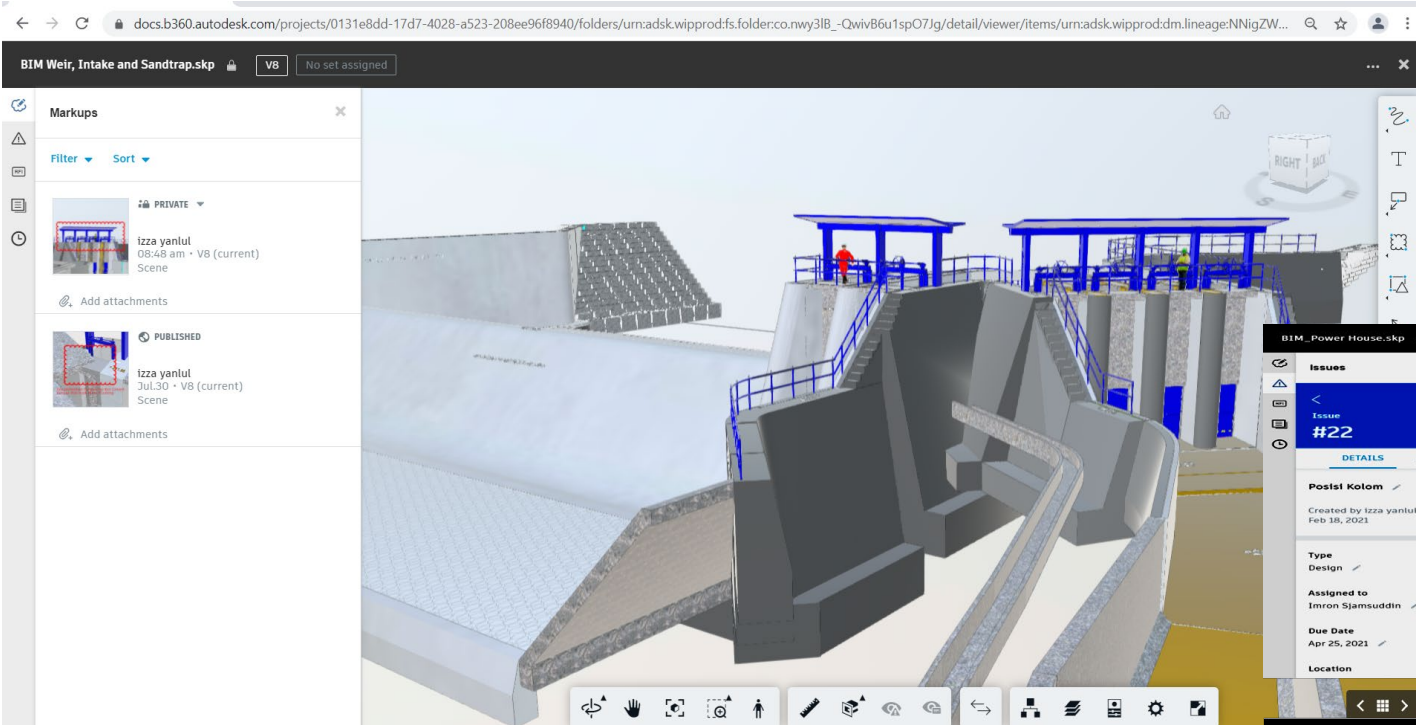
transmission

Sumatra Grid

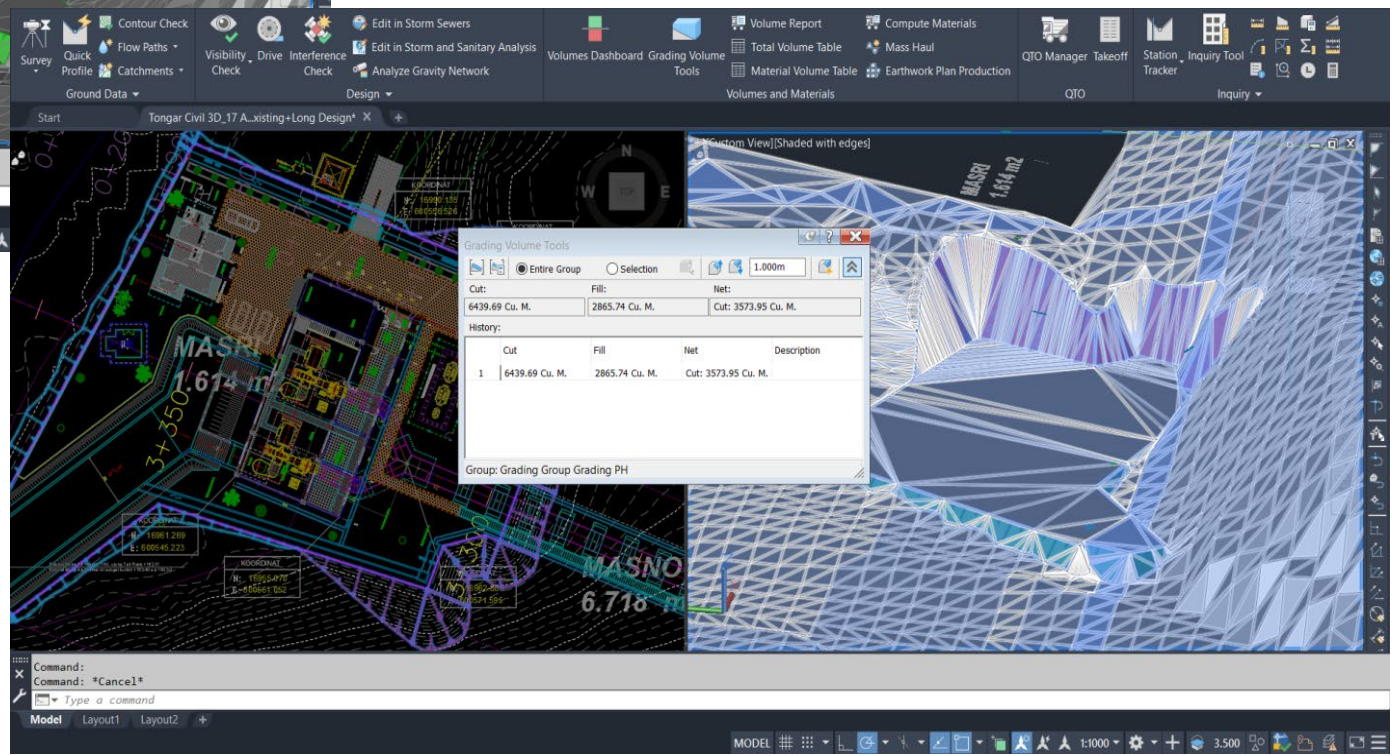
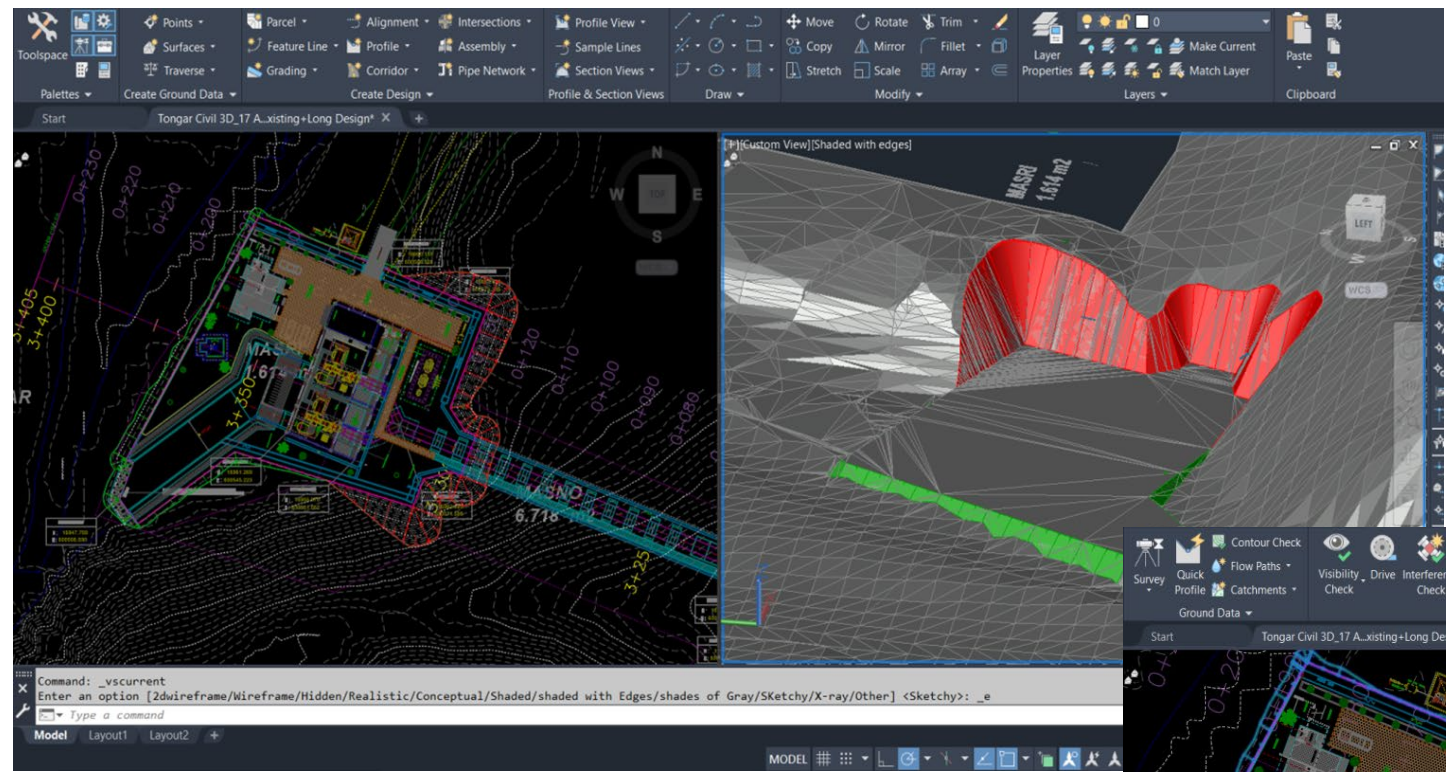


3D Modeling

- 3D Visualization : Image sharing, checking for structural interference
- BIM360 Automatic Quantity Calculation : Significant reduction in errors and rework, and reduce of simple tasks



3D Modeling

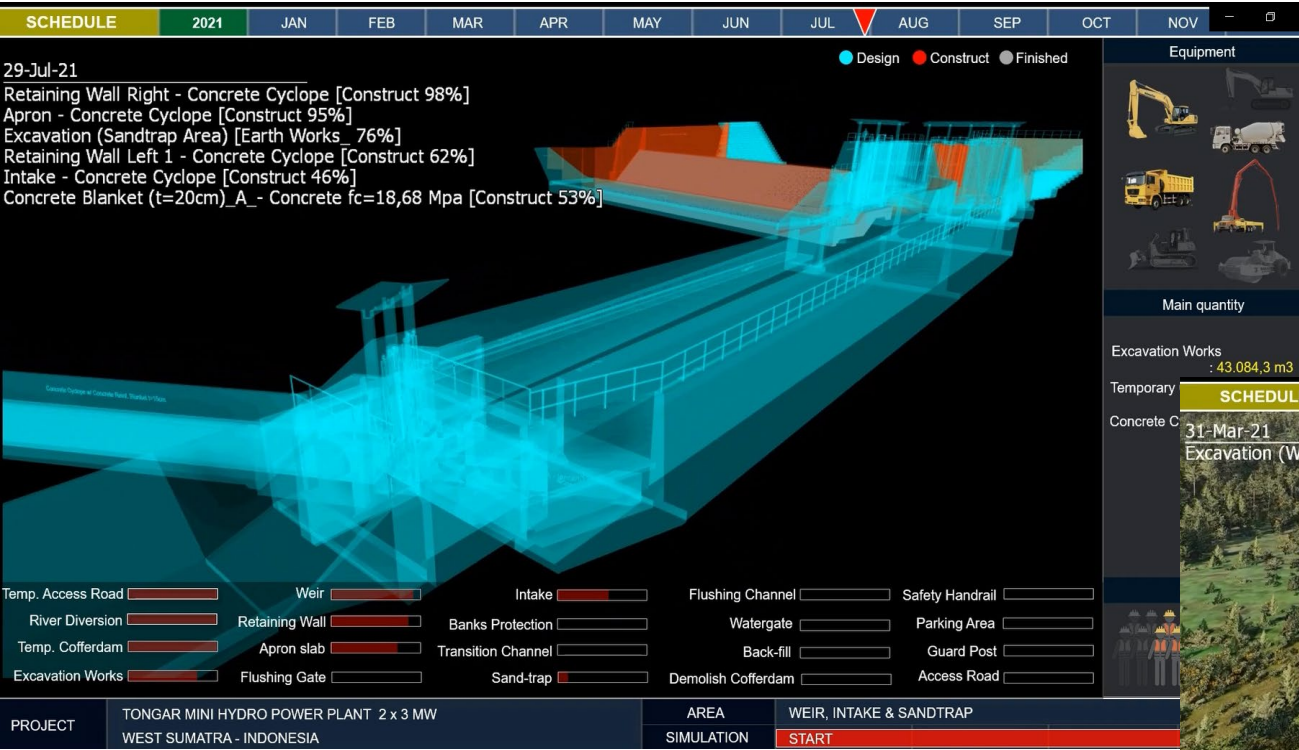


3D Modeling



4D Modeling (3D+timeline=Process)

By adding management information such as time, equipment, and number of Labor to the 3D model, processes and construction procedures can be visualized.



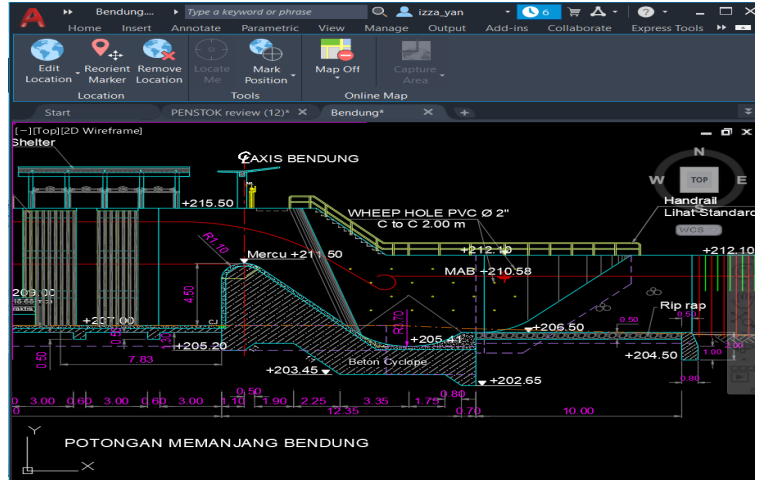
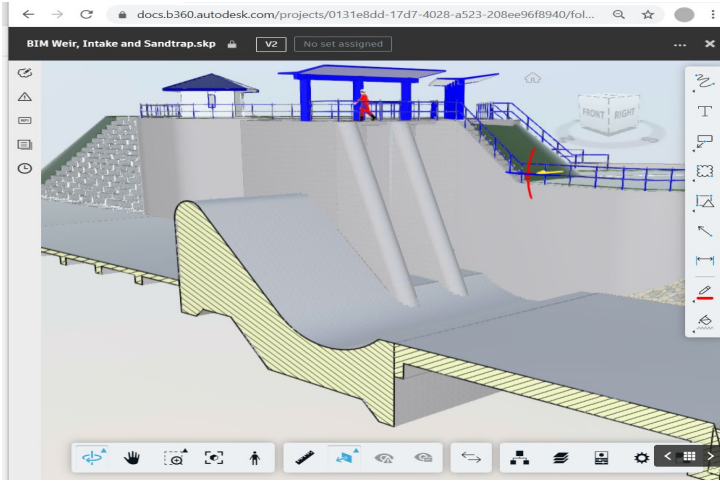
4D Modeling (3D+timeline=Process)

- Add information to 3D modeling (time/equipment/Labor, etc.)



Construction Management (Remote Management)

Employees working in the field, in the office, or teleworking in both Japan and Indonesia can work the software to work without being restricted by time or location.



Countermeasure of COVID-19

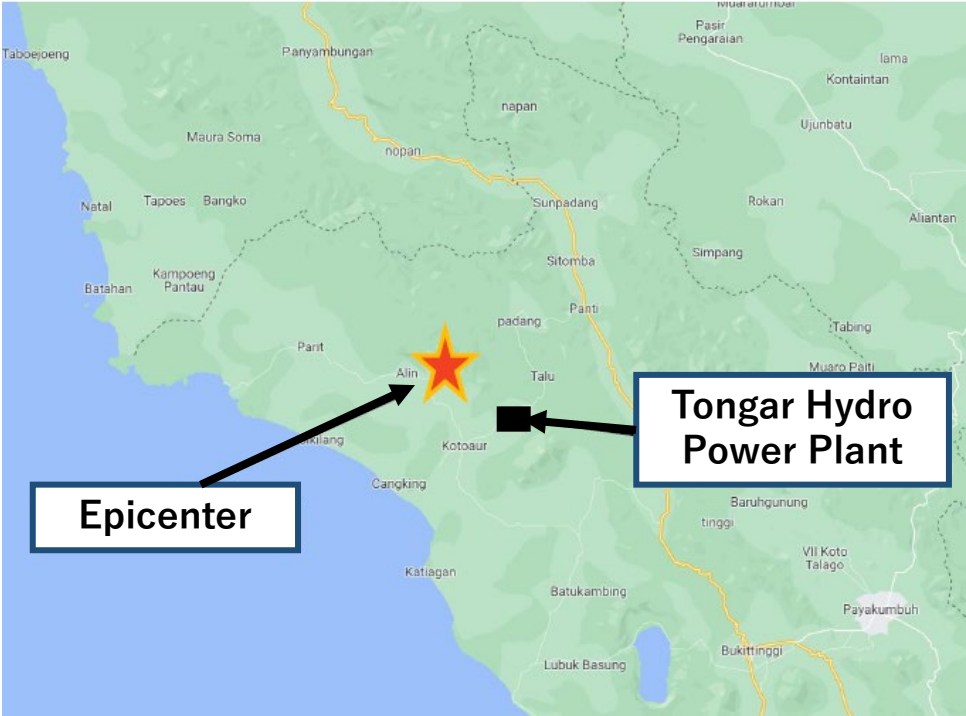


Some positive case were identified during overall periodic inspections at the construction site. Positive cases were mainly local employed, mostly asymptomatic, and no severe cases occurred.

Risk : Earthquake (February 25, 2022)

Earthquake of magnitude 6.2 with epicenter 10km deep occurred near the Tongar power plant on February 25, 2022

Location of epicenter and power plant site



Tongar Hydro Power Plant
Current Construction Status



Weir/Intake/sandtrap



Intake Gate



Water way

Tongar Hydro Power Plant
Current Construction Status



Power plant



Penstock



Head Pond

Construction Progress Video



An aerial photograph of a large, busy roundabout in a city. In the center of the roundabout is a large, circular fountain with multiple water jets. The roundabout is filled with cars and motorcycles, indicating heavy traffic. Surrounding the roundabout are various buildings, including a prominent one with 'GRAND HYATT' signage. The image is overlaid with a semi-transparent dark grey rectangle containing white text.

**NiX Group will contribute to
decarbonization through our renewable
energy business**

An aerial view of a city, likely Jakarta, with a blue overlay. The image shows a dense urban landscape with many skyscrapers and a wide highway with multiple lanes. The text "TERIMA KASIH!" is centered in the upper half of the image.

TERIMA KASIH!

Thank you for your attention