

always
powering
ahead

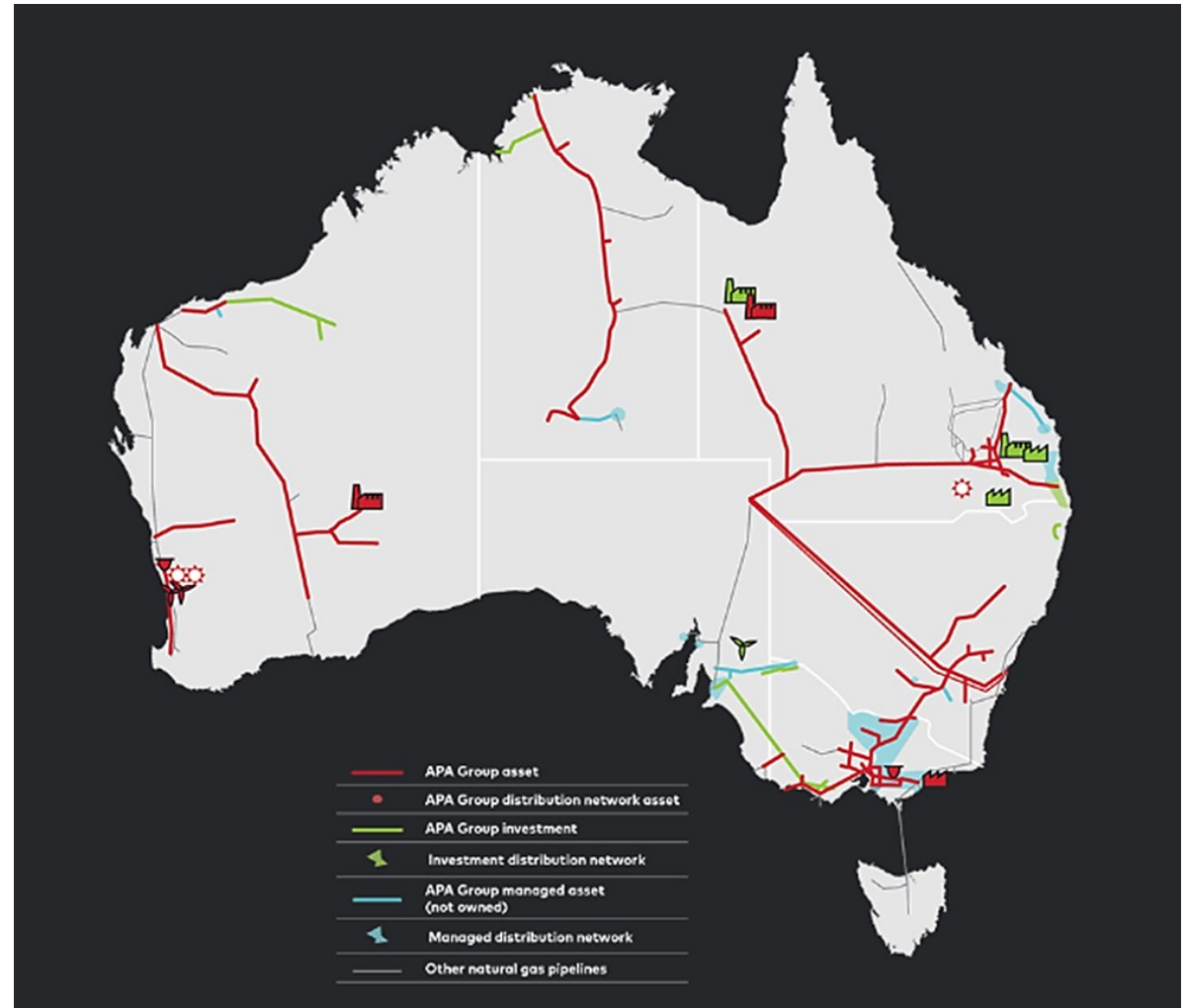
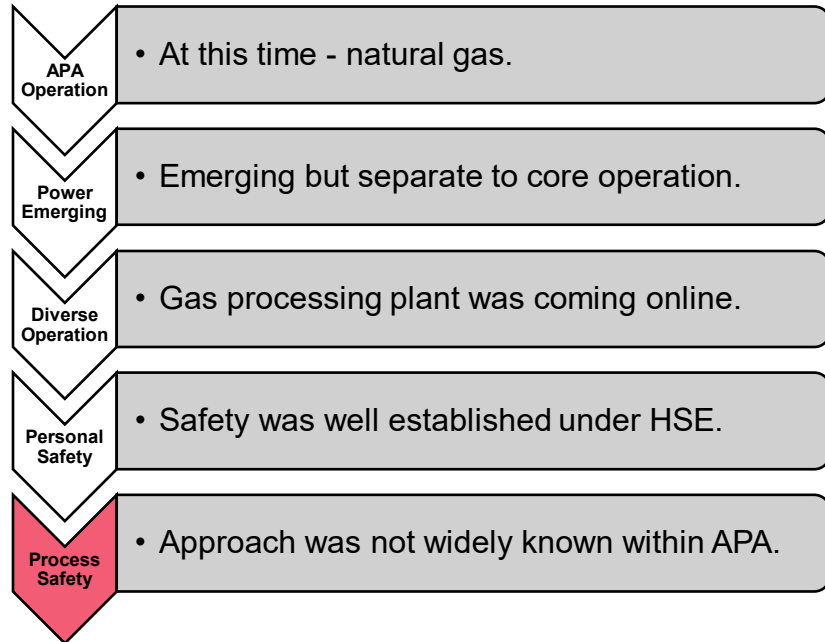
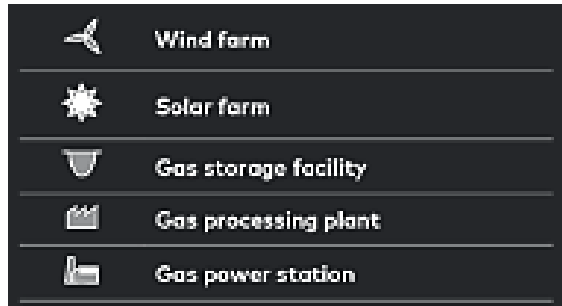
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AN OPERATOR WITH BIG PICTURE THINKING ON PROCESS SAFETY

APGA Presentation
October 2021



APA Group Operations - 2017



The Operating Environment in 2017

Process and systems were in place to manage process safety

- Discrete and participation required specific working knowledge.
- Looks to AS 2885 to guide in safe design, construction, operation and management.

System and Process Examples

- Permit to work
- Job hazard analyses
- Lock out tag out
- Management of Change
- Incident investigation and management
- ESD testing
- Equipment inspections

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pipeline corridors

We want to ensure the safety of anyone working or living near our underground high-pressure gas transmission pipelines.

Our underground high-pressure gas transmission pipelines traverse vast distances, from remote outback locations to urban environments. We design, construct and maintain our pipelines to the highest standards, and always with safety in mind. But everyone has a part to play in maintaining pipeline safety.

It's always important that you find out what's below before you dig or before you plan or approve new developments. In the case of high-pressure gas transmission pipelines, this is especially important.

Living near a gas transmission pipeline

If you live or work near a gas transmission pipeline, here's what you need to know.

Information for Planners & Developers

If you plan or approve developments near a gas transmission pipeline, here's what you need to know.

Before You Dig

Before building or excavating near a gas transmission pipeline you must use the Free Dial Before You Dig service and view our Pipeline Safety Awareness video.

Thinking Process Safety

*“The safe operation of APA’s assets such that there is no major accident event (fatality or multiple fatalities) as a result of **harmful substance or energy release.**”*



Why establish process safety?

- Structure for management of asset safety risks involving harmful substance or energy
- Aimed at high consequence low likelihood events
- Common approach across industry
- Organisation wide involvement



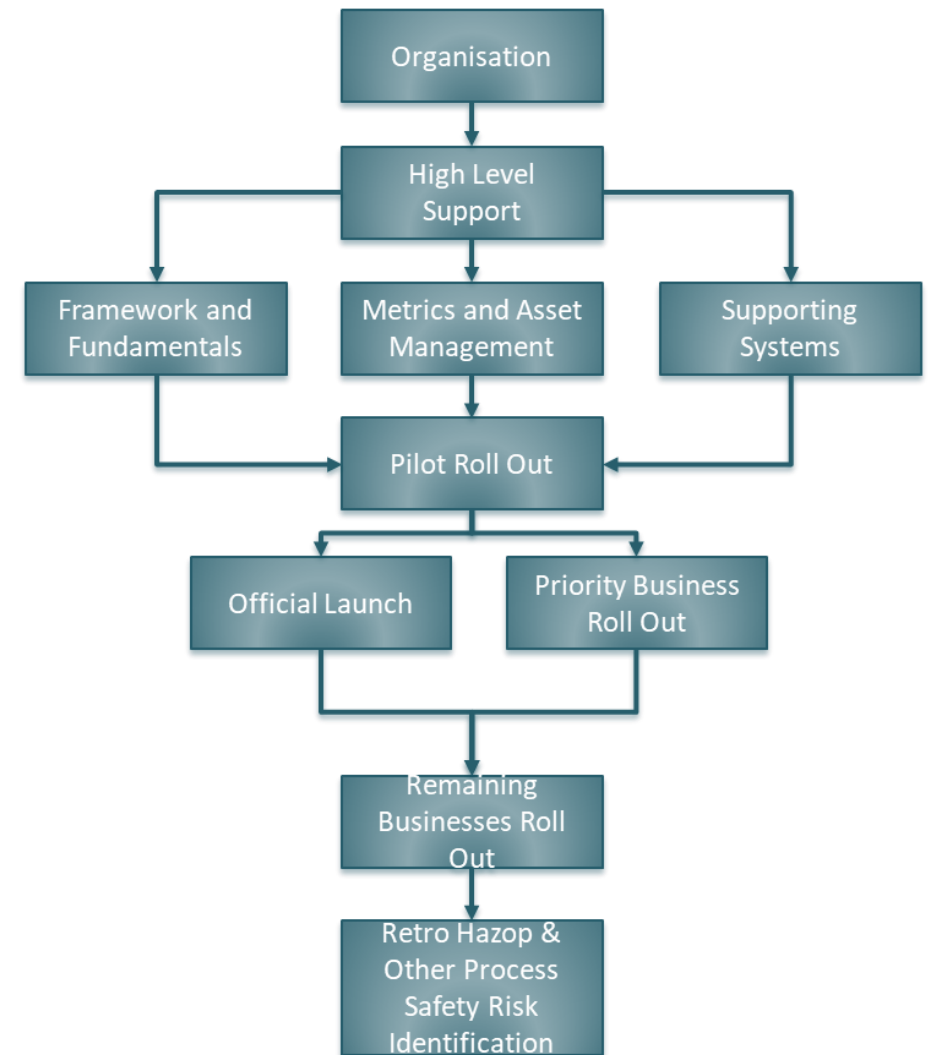
The Process Safety Journey

Activities to build support from leadership as well as actions to build awareness are key



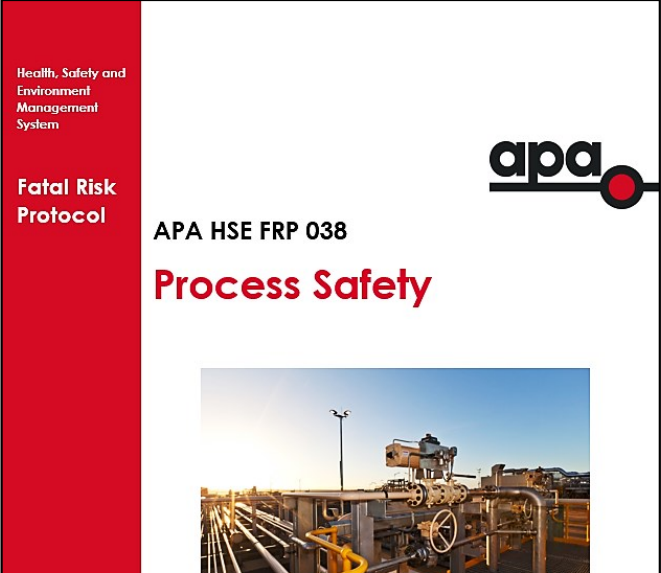
Starting the Journey?

- **Organisation** – dedicated roles
- **Top-down leadership** - awareness and support from the top
- **Metrics** - early awareness of incidents and improvement opportunities
- **Systems** – build or improve key ones
- **HSE Policy Commitment** - gets process safety on same level as rest of HSE
- **Engagement** - involve leaders at all levels
- **Business wide awareness** –early opportunities



APA's Framework

- Detailed framework built off the Energy Institute model
- Simple fundamentals to enable communication
- Back up with clear expectations and processes to support
- Details of Energy Institute Framework built into HSE Framework as a "Fatal Risk Protocol" under fundamentals headings.



and defines the out of all assets, management of its associated Advisor, document and statements of this and complying

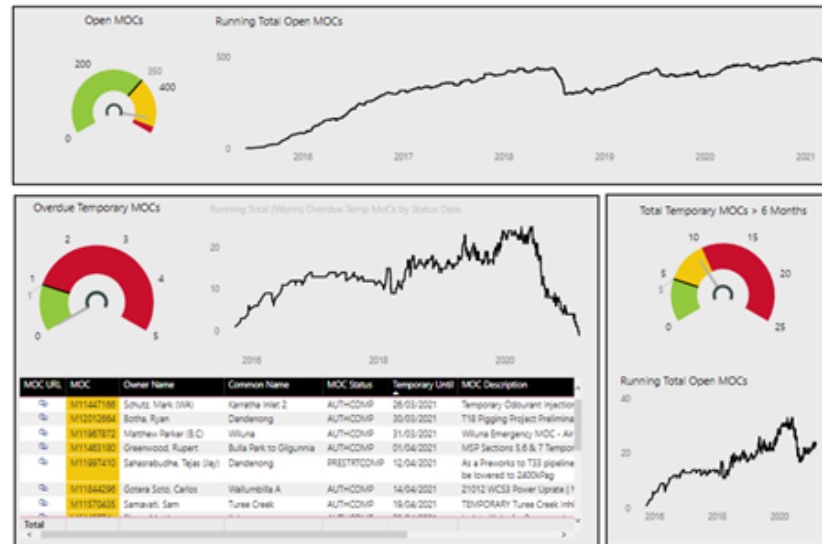
Supporting with Processes & Systems

The how behind the fundamentals

Make them “good enough” before roll out

Aim to “make it easy to do the right thing” through

- Training
- Easy access
- Removing noise
- Making it visual
- Ongoing governance & support
- Ongoing improvement



Process Safety

Safe operation of APA's assets such that there is no major accident event as a result of an energy or harmful substance release.

Process Safety Contacts: **Somnang Sovann** (lead), **Leigh Atkins** (Vic/NSW), **Gaya Bulathsinghala** (WA/NT), **Chris Broad** (QLD) and **Thao Ho** (Orbost)

APA [Process Safety Fundamentals](#) Expectations

- Risk Assessment**
 - [Enterprise Risk Table \(ES&S Matrix\)](#)
 - [Facility SuS Risk Register](#)
 - [APA Target Risk Tool](#)
 - [Risk and Compliance Home](#)
- Incident Investigation**
 - [Safeguard+ Incident Reporting](#)
 - [IOC Alarm Performance Register](#)
 - [Process Safety Power BI Report](#)
 - [Process Safety Incident Guidance](#)
 - [Operational Incident Lessons Learnt](#)
 - [Facility Engineering OIM Report](#)
- Alarm Management**
 - [Alarm Framework](#)
 - [IOC Alarm Performance Report](#)
 - [VTS Alarm Performance Report](#)
- Management of Change**
 - [Management of Change \(Home\)](#)
 - [MoC Coordinator Meetings](#)
- Safety Critical Procedures**
 - [APA Emergency Response Permit to Work](#)
 - [PS Fatal Risk Protocol](#)
 - [Safety Critical Device Impairment](#)
- Safety Critical Device**
 - [Process Safety Dossier](#)
 - [SCD Impairment Report](#)
 - [Pressure Vessel Deferral Form](#)
- Safety Critical Activity**
 - [Pressure Safety Valve Register](#)
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Process Safety Fundamentals Training

Face to Face Training

Experienced trainers

Stories from personal experience

Involving asset operations and team leaders

Build into organisational on-boarding safety training (APA on-line training nearing completion)

Have your
leaders in
the room



Keeping the conversation going

- Build into business processes e.g. asset management reporting as part of governance
- Use incident investigation & lessons learnt as a way of building understanding how to do the right thing
- Use feedback to improve systems and processes
- Use process improvements as a way to continue a wider conversation
- Develop support for leaders to have the process safety conversation

Safe to Operate?

When operating or modifying assets:

- Raise process safety hazards and participate in the solution.**
"Have you observed hazards that could lead to a loss of energy control, impairment to safety systems or breaches of operating limits?"
- Report and investigate process safety incidents.**
"Have you reported the process safety incident?"
"Have we completed a 5-Why assessment and recorded any actions in Safeguards?"
- Follow safety critical procedures and permit to work.**
"Have you followed the steps of any safety critical procedures such as permit to work and management of change?"
- Operate with safety unless authorised.**
"Have you altered operating income without authorisation?"

Process Safety
working to prevent harmful substance or energy release

Safe to Operate?

When operating or modifying assets:

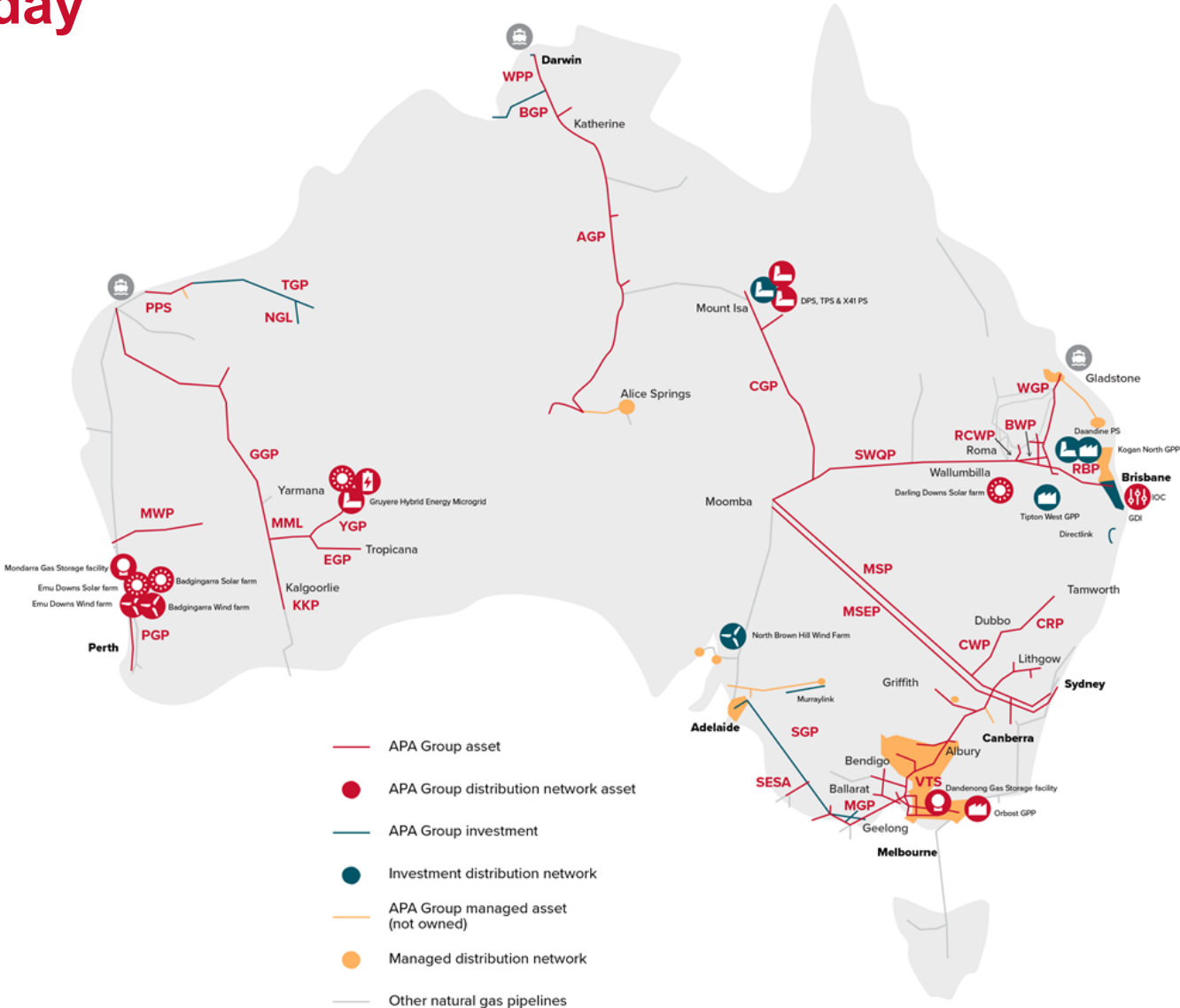
- Operate within safe operating limits (SOL).**
"Have you confirmed those unusual operations such as pipework ring, or out of range instruments are within safe limits?"
- Respond to alarms and prioritise during abnormal operation.**
"Have you adequately responded to those recurring alarms?, or have you normalised the risk?"
- Undertake safety critical activities including critical inspections, testing & maintenance as scheduled.**
"Do we have any overdue safety critical work activities - were they authorised?"
- Obtain authorisation before modifying assets.**
"Before you attempt modification work on site, is the MoC authorised?"

Process Safety
working to prevent harmful substance or energy release

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APA Group Operations Today

-  Wind farm
-  Solar farm
-  Gas storage facility
-  Gas processing plant
-  Gas power station
-  Integrated Operations Centre
-  LNG plant
-  Batteries



The Process Safety Big Picture Ahead

Make it part of onboarding e.g. Fatal Risk Protocols training

Apply process safety to APA power assets & future operations

Support leaders in process safety discussions

Improve & build processes to enable proactive risk identification e.g. retrospective HAZOP

Revised Process Safety Definition

•The safe operation of APA's assets such that there is no major accident event (fatality or multiple fatalities) as a result of **loss of control of harmful substance or energy.**



For further information

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