

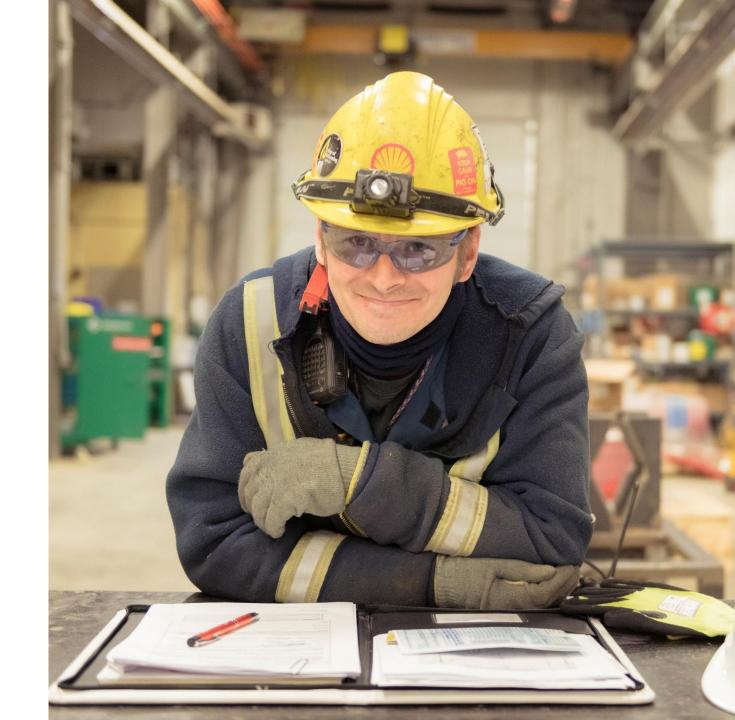
## **Mark Pattenden**

Senior Vice President, Shell Canada & General Manager, Shell Scotford



# WHO WE ARE

- Petrochemicals Plants, Refinery, Upgraders,& Quest Carbon Capture & Storage.
- Leader in low-carbon solutions and energy efficiency.
- 1,300 innovative Shell Canada employees.
- 400 long-term/embedded contractors.
- Thousands of short-duration contractors annually to support operations and maintenance, including Turnarounds.



# SHELL ENERGY AND CHEMICALS PARK SCOTFORD

CANADA'S MOST ENERGY EFFICIENT REFINERY









HYDROGEN

CHEMICALS

#### **CARBON CAPTURE AND STORAGE**

300M TONNES OF CO<sub>2</sub> STORAGE CO2 STORAGE HUB OPERATOR

## CUSTOMER FOCUS

Delivering customer centric products from current and new value streams. Bringing customers and assets together.

#### **RENEWABLE FEEDSTOCKS**





BIOMASS

OILS/FATS

#### **RENEWABLE POWER**





# MOVING TO RENEWABLE ENERGY SOURCES

Leveraging Alberta's other natural resources - long, sunny summer days.



- Installation of 14,600 solar panels is underway we are closing in on 50 per cent installation with the expected completion in mid-November.
- The farm will produce 4.6 MW of power to the Chemicals plant.
- Displacing 3% of the electricity consumption, thereby reducing Scope 2 emissions and our site electricity supply costs.
- Exploring other solar opportunities

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# CCS AND PROPOSED CO<sub>2</sub> STORAGE HUB

### QUEST CCS

Quest CCS captures and stores 1 million tonnes/yr  $CO_2$  storage for the AOSP upgrader. Quest has captured more  $CO_2$  than planned for less cost than anticipated.

### POLARIS CCS

Shell is proposing Polaris CCS to capture about 750,000 tonnes/yr from Scotford refinery and chemicals.

### PHASE 2 OF POLARIS

Will see the creation of a  $CO_2$  storage hub for >10 million tonnes/yr storage. If built, it would provide  $CO_2$  transport and storage on behalf of existing and new third-party emitters.

SHELL ENERGY AND CHEMICALS PARK SCOTFORD

POWER GENERATION FACILITIES



OTHER HEAVY INDUSTRY SOURCES (PETROCHEMICALS, MANUFACTURING, CEMENT PRODUCTION, ETC.)

NEW THIRD-PARTY HYDROGEN FACILITIES



Quest CO<sub>2</sub> Capture facility

Polaris CO<sub>2</sub> Capture facility

POLARIS CCS CO<sub>2</sub> STORAGE HUB RESERVOIR

