



**DIGITAL SOLUTIONS**

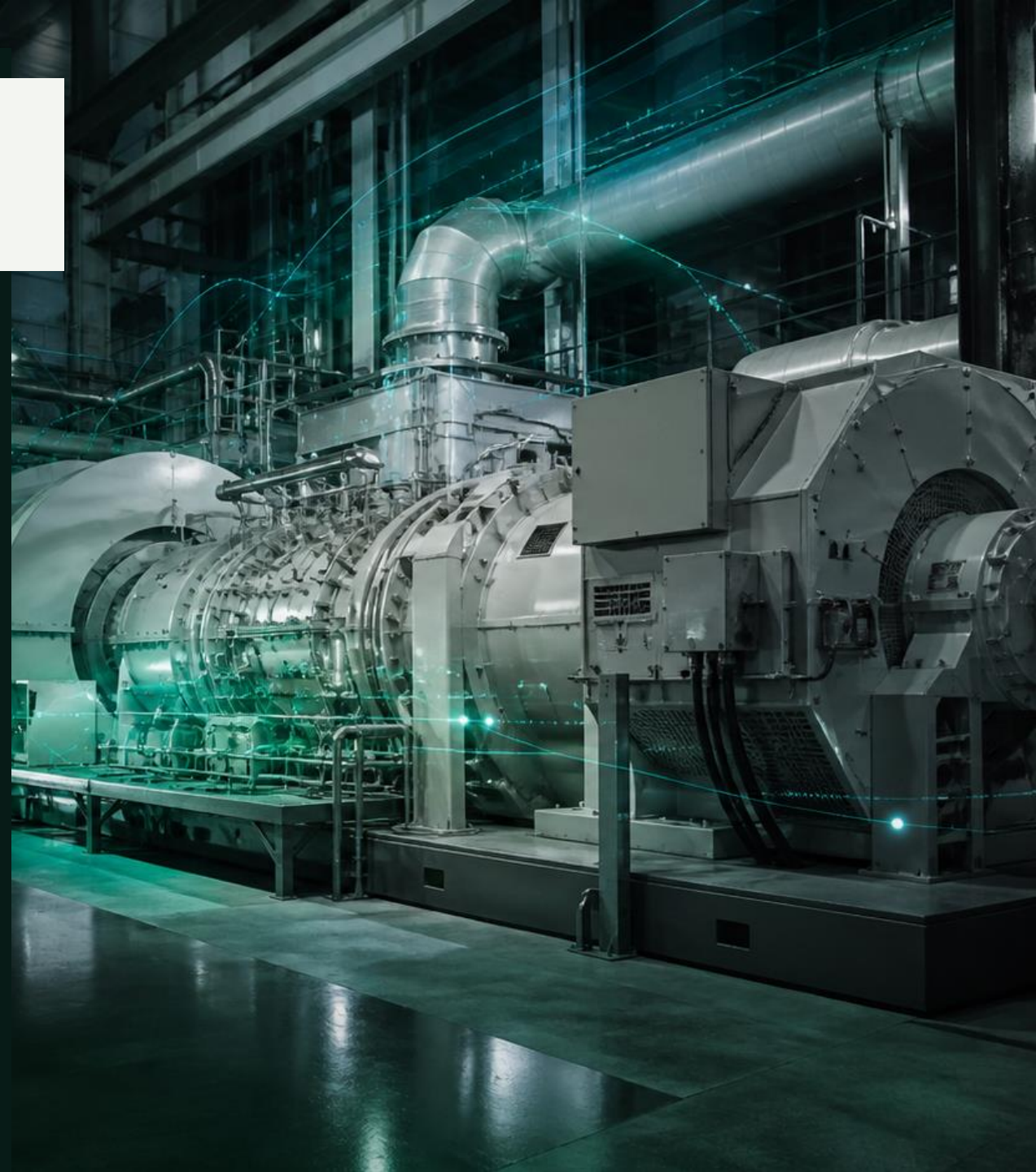
# INDUSTRIAL INTELLIGENCE, DELIVERED IN THE FIELD

## Company Profile 2026

Machinery protection • Condition monitoring  
Control systems • Lifecycle modernization

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A Power Engineering World company



# Critical assets need one accountable thread from field signal to operating decision.

PEW Digital Solutions integrates engineering, procurement, installation, commissioning, diagnostics, and lifecycle support around the installed base—not around a single vendor catalogue.

## PROTECT

Machinery protection, vibration monitoring, alarm integrity

## CONTROL

Turbine, generator, HMI, network, and plant-control modernization

## SUSTAIN

Field service, spares, troubleshooting, training, and lifecycle planning

# Engineering heritage, translated into accountable local delivery

The specialist digital-solutions unit operates within Power Engineering World’s broader EPC and energy platform.

20+

years of PEW group engineering heritage

5,000+ MW

group participation across generation, transmission, monitoring, and control

8

control and monitoring projects between 2021–2024

## FOCUS INDUSTRIES

Power generation

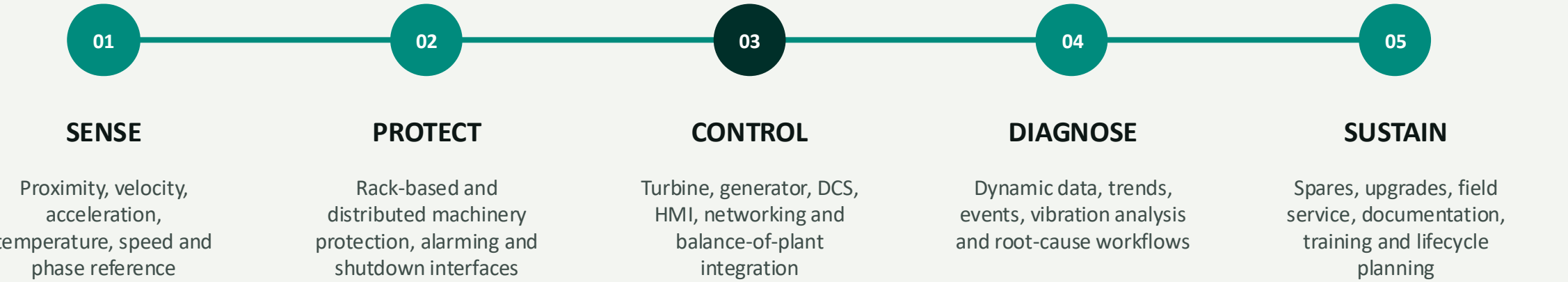
Oil & gas

Water & wastewater

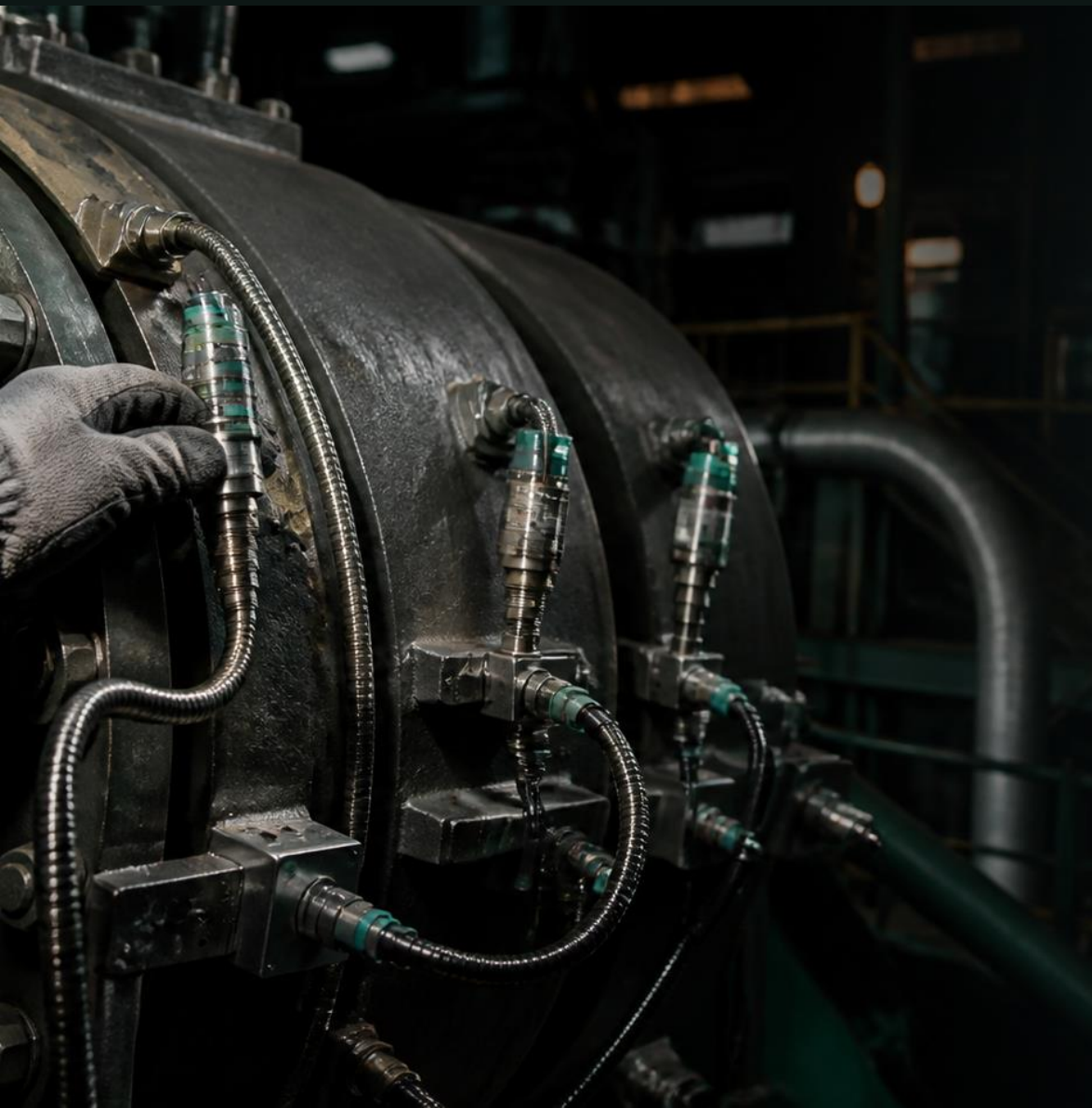
Process industry

# Our expertise spans the complete asset signal chain

Each layer is engineered as part of one operating system—from transducer integrity to the decision made in the control room.



**Design principle**      **Preserve protection integrity, validate control behavior, and turn reliable data into maintainable operating decisions.**



# Protect the machine. Understand the behavior.

- **Monitoring platforms**  
3500, Orbit 60, 2300/20, 3701 ADAPT, Ranger Pro, portable analyzers, and System 1 environments.
- **Engineering scope**  
Installed-base survey, channel and sensor review, configuration, cabinet/interface design, alarm and trip verification.
- **Diagnostic scope**  
Data collection, vibration analysis, event review, trend interpretation, fault localization, and maintenance recommendations.

# Modernize controls without losing plant context.

- **Installed-base platforms**

Mark II / III / IV / V / VI / VIe control families, OnCore DCS/HMI environments, and EX2100e excitation scope.

- **Engineering scope**

Logic and I/O review, HMI and workstation replacement, network upgrades, interface mapping, redundancy and obsolescence planning.

- **Delivery scope**

Configuration, panel and system integration, FAT/SAT support, commissioning, troubleshooting, documentation, and operator transfer.



# Modernization protects continuity before it adds capability

The engineering decision is not simply ‘replace or retain’; it is a controlled migration based on risk, interfaces, outage windows, and lifecycle economics.

## 01

### BASELINE

Asset register  
Hardware / software  
revision  
I/O and network  
architecture  
Spares and supportability

## 02

### RISK

Obsolescence exposure  
Failure consequence  
Cyber and access constraints  
Outage and rollback risk

## 03

### DESIGN

Retain / replace strategy  
Interface and cutover plan  
Test specifications  
Bill of materials

## 04

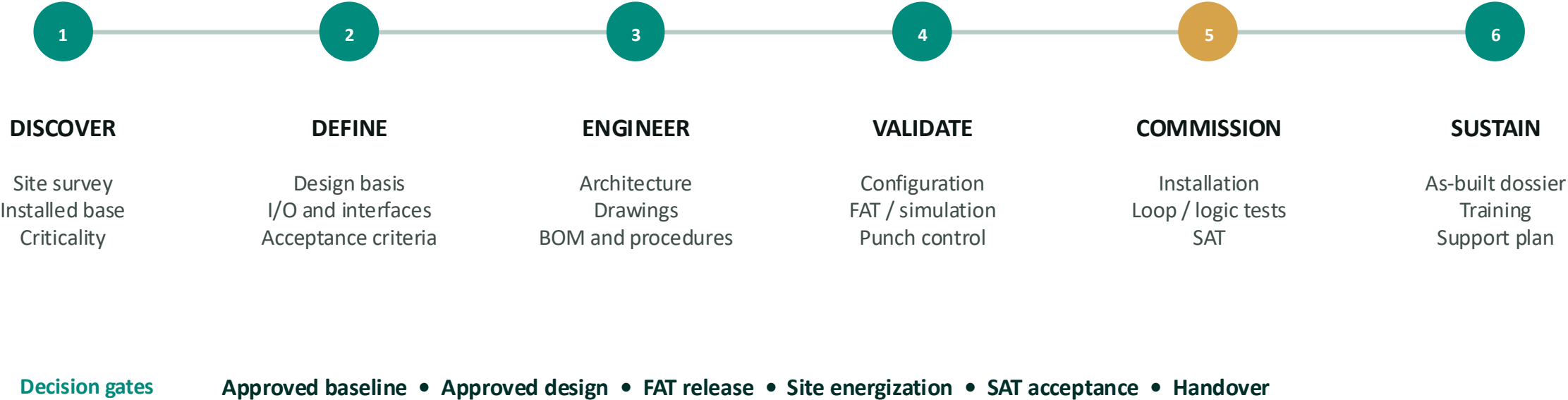
### MIGRATE

FAT and simulation  
Controlled installation  
Loop / trip / sequence tests  
SAT and performance  
evidence

**Outcome: a defensible upgrade path—with traceable assumptions, controlled interfaces, and a prepared operating team.**

# Engineering discipline converts scope into a commissioning-ready system

A gated workflow maintains technical integrity from discovery through handover.



# Field execution is built around evidence, safety, and handover

The deliverable is not a powered cabinet; it is a verified operating system with a controlled technical record.

01

## DESIGN BASIS

Approved architecture  
I/O and interface register  
Cause-and-effect / logic basis  
Cable and termination  
schedule

02

## VALIDATION

Configuration control  
Factory and simulation tests  
Alarm / trip verification  
Non-conformance closure

03

## SITE EXECUTION

Permit and HSE alignment  
Installation inspection  
Loop, sequence, and interlock  
tests  
Controlled cutover / rollback

04

## HANDOVER

SAT evidence  
As-built drawings and backups  
Spares and lifecycle register  
Operator and maintainer  
training

# Eight projects across four years

Power generation, oil & gas, and industrial scopes span control modernization, HMI/network upgrades, vibration monitoring, diagnostics, and lifecycle support.

2021

**Al-Khairat GTPP**

Vibration testing and analysis equipment

2022

**Samawah Power Plant**

Turbine-unit control-system upgrade

**Al-Taji Gas Power Plant**

HMI workstations and network upgrade

**Dhi Qar CCPP**

Heavy-equipment vibration analyzer

**NewPort Industries**

Controls plus vibration monitoring

2023

**Majnoon Oil Field**

Control-system supply and upgrade

2024

**PETRONAS Carigali Iraq**

Installed-base support and related accessories

**PetroChina Iraq**

Vibration monitoring system and services

# Control projects show depth from workstation network to turbine logic

## SAMAWAH POWER PLANT

2022 • IQD 2.1025bn

### Upgrade of turbine-unit control systems

Utility-scale control modernization requiring disciplined interface definition, testing, commissioning, and operating continuity.

## AL-TAJI GAS POWER PLANT

2022 • USD 537k

### HMI workstations and network upgrade

Operator-interface and network-layer modernization—linking workstation availability, communications, and maintainable system architecture.

## MAJNOON OIL FIELD

2023 • USD 97.7k

### Control-system supply and upgrade

A targeted field upgrade combining procurement, configuration, site integration, acceptance, and handover.

Common thread: scope definition → integration → validation → commissioning evidence → operating handover

## Two 2024 engagements reinforce installed-base support in oil & gas

The work combines system knowledge, service responsiveness, and disciplined supply around critical monitoring assets.

### PETRONAS CARIGALI IRAQ

# USD 695k

**Support services and related accessories  
for the Bently Nevada installed base**

#### Business meaning

Lifecycle support demands precise identification, compatibility control, supply discipline, and service continuity.

### PETROCHINA IRAQ

# USD 544.8k

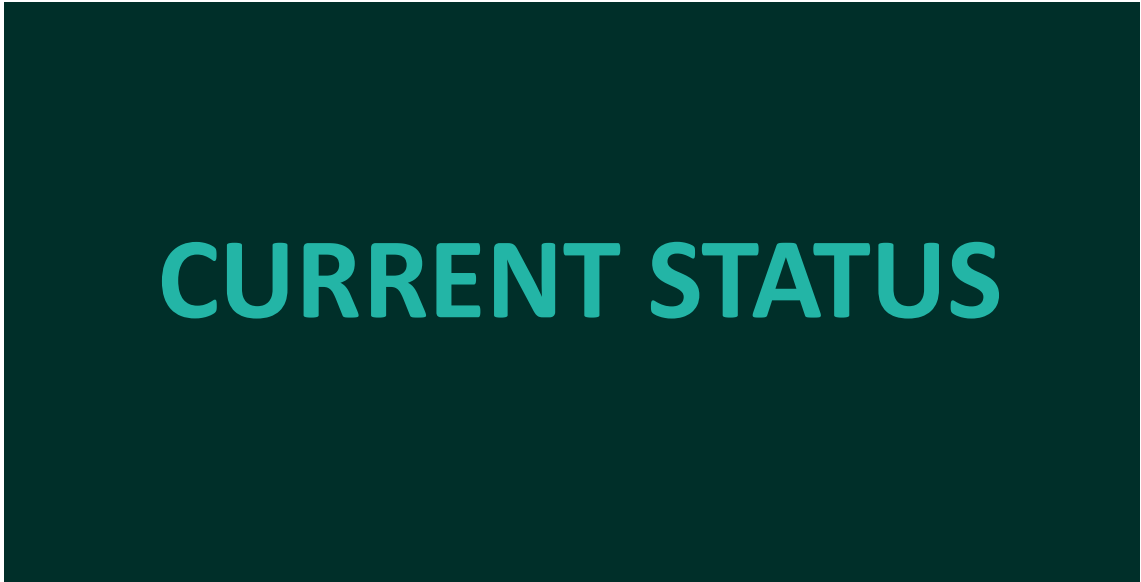
**Vibration monitoring system and services  
for a Phase 2 expansion power plant**

#### Business meaning

Expansion work requires monitoring architecture, field installation, integration, commissioning, and maintainable data workflows.

# Technology heritage, without ambiguity.

PE Digital Solutions' project history includes installed-base work involving technologies associated with Baker Hughes, Bently Nevada, Nexus Controls, GE, and GE Vernova.



## CURRENT STATUS

### What remains

**Documented project experience • Familiarity with legacy installed bases • Ongoing project relationships • Independent engineering and field delivery**

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**DIGITAL SOLUTIONS**

# Start with an installed-base and risk assessment.

Within one structured engagement, PE Digital Solutions can establish the technical baseline, prioritize lifecycle risks, and define a practical modernization roadmap with evidence, budget logic, and commissioning gates.

## FIRST ENGAGEMENT

- 01 Site and document review
- 02 Installed-base and obsolescence register
- 03 Risk-ranked technical recommendations
- 04 Budgetary scope and execution roadmap

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## Experiences Projects | 2021–2022

| Year | Customer / site                       | Scope                                                                 | Recorded value    |
|------|---------------------------------------|-----------------------------------------------------------------------|-------------------|
| 2021 | Al-Khairat Power Plant GTPP           | Vibration testing and analysis equipment for turbines and accessories | IQD 90,650,000    |
| 2022 | Samawah Power Plant / Southern Region | Upgrade of turbine-unit control systems                               | IQD 2,102,500,000 |
| 2022 | Al-Taji Gas Power Plant               | HMI workstations plus two additional computers and network upgrade    | USD 537,000       |
| 2022 | Nasriya / Dhi Qar CCPP                | Vibration analysis device for heavy equipment                         | IQD 69,000,000    |

# Experiences Projects | 2022–2024

| Year | Customer / site                     | Scope                                                                         | Recorded value |
|------|-------------------------------------|-------------------------------------------------------------------------------|----------------|
| 2022 | NewPort Industries L.P. Ltd.        | Supply and installation of new controls with vibration monitoring             | USD 808,307    |
| 2023 | Majnoon Oil Field                   | Control-system supply and upgrade                                             | USD 97,682     |
| 2024 | PETRONAS Carigali Iraq Holding B.V. | Support services and related accessories for the Bently Nevada installed base | USD 695,000    |
| 2024 | PetroChina International Iraq       | Vibration monitoring system and services for Phase 2 expansion power plant    | USD 544,790    |