NGSE EMERGENCY EXERCISE REVIVE

CONTROL CENTRE FEEDBACK REPORT TO GNCC

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1. Purpose

This report provides Control Centre feedback to GNCC on emergency exercise Revive; a combined scenario encompassing both pre and post interruption reforms (Mod 90). The report is provided in accordance with the template provided by GNCC in the exercise briefing pack. A separate DN exercise report is being provided, including the statistics requested in the briefing pack.

2. Summary

Exercise revive was successfully executed in Wales & West Utilities. The post Mod 90 interruptible consumers were successfully contacted via their shippers and able to interrupt. Similarly, a high proportion of the pre and post Mod 90 firm loads were contacted in good time and reported being able to stop taking gas. Communications between WWCC and GNCC were reasonable, although there are some areas of the isolation and restoration processes recommended for improvement.

3. Stage of Emergency: Preparation

3.1. Process: The Scenario

Observations:

The preparations made by GNCC were reasonable, although the mixing of post and pre Mod 90 data in a single exercise was thought to be a dimension of the exercise with a potential for confusion, especially when combined with the data requested in the new SitRep and AGR forms.

4. Stage of Emergency: Stages 1 to 3 combined

4.1. Process: Declaration

Observations:

Exercise Revive NEC1 Declaration received in WWU incident room at D1 9:30. Stages 1,2 & 3 Declared.

4.2. Process: DNCC1/R/a exchanges for first rate reduction

Observations:

DNCC1 received from GNCC at D1 9:44. WWU replied with DNCC1R at D1 10:53. GNCC responded with DNCC1a at D1 11:01.

4.3. Process: Firm load shedding and Interruption

Observations:

Firm load shedding and interruption commenced at D1 9:30. Contact made with iGTs and shippers, although there were some fax failures for iGTs. All VLDMCs successfully contacted by D1 10:16, although there were difficulties with an international fax number for one site.

Firm load shedding and interruption updates were received and forwarded to GNCC with some timing variations from programme.

GNCC Request for Firm Load Shedding Table received at approx D1 11:50. Form returned at approx D1 13:40

5. Stage of Emergency: Stage 4 – Isolation

5.1. Process: Exchange of forms between WWCC and GNCC

Observations:

DNCC1 version 2 received from GNCC at D1 13:53 declaring stage 4 and revised EOD Take.

NET5Ra returned to GNCC approx D1 14:30 with Isolation data.

DNCC1R version 2 returned to GNCC at D1 14:45.

DNCC1a version 2 received from GNCC at D1 14:53 confirming EOD rates.

SitRep form returned to GNCC at D1 16:50

6. Stage of Emergency: Stage 5 – Restoration

6.1. Process: Preparation for Restoration during D1

Observations:

DN Update form received at D1 17:02 enquiring as to additional gas volumes required for restoration tomorrow. A provisional quantity of 2.5mcmd was offered

AGR(1) form returned to GNCC at D1 17:12 showing apportionment of the provisional quantity.

Exercise suspended for the day

6.2. Process: Interactions and form exchanges during D2

Observations:

GNCC declare Stage 5 at approx D2 0900

At D2 0900 GNCC confirms that AGR(1) allocation from yesterday can be provided. Also GNCC report deterioration in weather and request new version of AGR(2) form be returned by D2 11:00 and to update SitRep forms accordingly.

WWU Corresponds with GNCC ref weather and gas price effects on demand

At approx D2 11:00 GNCC request an Intake profile for AGR(2)

Correspond with GNCC at D2 14:58 ref the usability of the additional gas volumes offered for D2 and 3

Restoration Glide-path (graph) provided to GNCC at D2 15:29

7. Conclusions & Recommendations for Improvement to process:

7.1. Improving Data Integrity

There were issues with the reporting of load shedding data and new intake rates between WWU and GNCC because of a number of factors:

Parts of the exercise were assumed to be pre-mod 90 and other parts were post mod 90, leading to the potential for misinterpretation of interruption data

Recommend that future exercises do not require the mixing of data from different load reduction regimes. e.g. Pre and Post Interruption Reforms

The new Situation Reports were challenging to complete, with a potential for different interpretations. DNs were asked to provide information on the Daily Volume shed in a variety of site categories (which repeated the issue above). In addition, when WWU contacted GNCC to confirm that daily volumes were required, we were asked to use the volume shed up until the current time (notionally 7pm) and not for the whole day.

The above issues became compounded and it was challenging to maintain consistency between all of the figures provided at each period of the exercise. This has the potential to cause confusion if and when we need to undertake these tasks for a real emergency.

I SitRep and AGR are to be used, we recommend that more precise and succint guidance is provided. The acronym "SOQ" could perhaps be replaced, as this is usually taken to mean "…the Registered Supply Point Capacity in kWh per day" – NG source

7.2. Improving Realism

The DNs were asked to undertake a manual forecast assuming a 2 degree temperature reduction. Given that the temperatures on day 1 of the exercise were set at -2 to -5 and gas prices were said to have risen significantly, we felt that the temperature reduction may not be significant enough to result in an increase in demand. However, we were told that an increase in demand was required in order for the exercise scenario to work so again we offered to manipulate the figures. WWU considered this to be an unrealistic situation.

The new 'Additional Gas Request' forms were used on day 2 and WWU provided estimates of the volumes of gas that would be needed for full restoration of the non-isolated parts of the network, on the assumption that this would take place from 13:00 and that the isolated parts of the network would not be restored for approx 3 weeks. The new total intake volumes (existing plus the Additional Gas Requested) were way in excess of the volumes that we could have taken into WWU Networks. In reviewing the figures and following discussion with GNCC the most likely reason for this was that GNCC had assumed the same level of load shedding on day 2 as day 1, ignoring the fact that on day 2 load shedding was in place from 06:00.

Recommend that greater realism is used during future exercises by using real time demand data and avoiding jumps in time. This allows us to use our "Time to fail" models as intended, without falsifying data inputs.

WWU would like to question the benefit of providing the detailed breakdown of load data that is requested in existing forms (e.g. DNCC1) and the new SitRep and AGR forms. We understand that the load reductions must be balanced between networks, but we would like to explore a more pragmatic way of achieving this, such that DNs have more potential to manage their own systems. i.e. give use the overall volumes required and we manage it from there, reporting back in overall volumes

Recommend that all future NGSE exercises start with a telephone call to DN Control centres

Recommend holding follow-up workshops within just a few days of exercises, so that experiences are fresh in the mind.