

Figure 4 Bus voltages before and after reconfiguration and droop optimization.

4. Conclusion

This paper introduced the joint optimization of the dc MG topology and the droop settings of distributed generators when islanding takes a place. The objective was set as loss minimization subject to technical and operational constraints. The test results proved that the operation of an islanded dc MG with reconfiguration capability can be enhanced by simultaneously adjusting the droop settings and reconfiguring the MG topology. Ongoing work is focusing on reconfiguring dc MGs that are intertied with ac MGs through bidirectional ac/dc converters.

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