



Business Continuity Plan
Bhutan Automation & Engineering Limited

July 2022
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Bhutan

Version History				
Version	Approved By	Revision Date	Description of Change	Author
0	The Board	26.06.2020	New	TT
1	CEO	01.06.2021	Employee update	TT
2	CEO	23.07.2022	Detailed roles and responsibilities and employee update	TT

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1. Introduction

The purpose of this business continuity plan (BCP) is to prepare the Company to respond to a significant business disruption (SBD) by safeguarding employees' lives and property including data and records; making necessary financial and operational assessment; and recovering and restoring operations to the widest extent possible in a minimum timeframe.

This plan shall encompass Office facility and all active project sites of the Company.

Given the small size of the Company, for the purpose of this document, the Business Continuity Plan shall be defined to include Emergency Response, Disaster Recovery, and Business Continuity.

Overall, the purpose of this plan is to enable sustained execution of mission critical activities following an SBD that prevents service delivery under regular circumstances.

2. Definition of Significant Business Disruption (SBD)

For the purpose of this plan, "significant business disruption (SBD)" is any event such as loss of utility service, connectivity, or catastrophic event that causes an interruption in the delivery of the Company's products and services. The plan identifies vulnerabilities and recommends measures to prevent extended service outages and impact to its business performance.

SBDs are categorized as either natural or human produced as listed below. However, the list below is not exhaustive.

Natural: Biological, human, animal, plant, meteorological, ice/snow, flood, wind/tornado, geological, earthquake, and fire.

Human Induced: Human error, systems failure, fire/explosion, terrorism, international tension, war, criminal acts, civil disturbance/extremism, sabotage, and hazardous material spill.

3. Scope

The objectives of this BCP are to recognize essential elements in BHUTAN AUTOMATION's business operations and form a plan to respond to the loss of essential resources, infrastructure and information, or the interruption of the Company's workforce.

These broad scenarios cover a multitude of potential threats and the planned responses address all categories of business interruption including natural and human-induced

disasters, pandemics, etc. Hence, the scope of this business continuity plan shall include, but not limited to, the following aspects during times of SBD.

- Data back-up and recovery (hard copy and electronic);
- All Mission Critical Processes;
- Alternate communication channels;
- Alternate physical location of employees;
- Critical business constituent, bank, and counter-party impact;

Each Project site shall implement the BCP, with adaptations as required, to handle unique recovery procedures, critical resource information and procedures.

4. BCP Response Management Team

Based on the size of the Company, the SBD response management team shall comprise of the following members.

- Chief Executive Officer
- Chief Technology Officer
- Manufacturing Supervisor
- HR Officer
- Finance and Controlling Officer
- Project Managers

The detailed roles and responsibilities of each team member are given in the table below.

Role	Responsibilities
CEO (Incident Commander)	<ul style="list-style-type: none"> • Activate the system and the teams as and when required. • Shall be the overall lead. • Communicate with the Board, Shareholders, and other relevant external Organizations. • Act as media spokesperson. • Communicate with the teams on the situation. • Provide overall direction to handle emergency situations. • Conduct coordination meeting with the members during the SBDs.

CTO (Technical Services)	<ul style="list-style-type: none"> • Ensure smooth execution of the projects. • Optimize and ensure engagement of the manpower in the various projects. • Identify and keep ready adequate backup manpower back for contingencies. • Evaluate the potential implications for the customers and supply chain contracts and propose/initiate suitable actions. • Work on new projects/proposal as they come in
HR Officer (Communication/Coordination)	<ul style="list-style-type: none"> • Responsible for communicating to internal and external stakeholders regarding the dissemination of information related to day-to-day operational matters. • Also coordinate with the CEO to disseminate ongoing updates to the employees
Manufacturing Supervisor (Procurement and Logistics)	<ul style="list-style-type: none"> • To follow and keep track of the materials which are already under procurement. • Evaluate the potential implications for supply chain contracts and propose/initiate suitable actions. • Handle all logistical requirements during the SBDs.
Finance and Controlling Officer	<ul style="list-style-type: none"> • To do financial analysis for different scenarios as the situation evolves/progresses • Ensure proper control to suit the evolving/progressing situation • Ensure adequate cash flow in the company during the SBDs
Project Managers	<ul style="list-style-type: none"> • Responsible to adapt guidelines given in this Plan to their respective project sites in consultation with the CTO and implement the same • Regularly reporting to the Incident Commander

5. BCP Response

5.1. Enacting the BCP Response Plan

Any of the events defined under SBD may constitute reason to enact the BCP response.

- ✓ The Chief Executive Officer may initiate the BCP response at his discretion and notify the team.

- ✓ Any two members of the BCP response team may initiate the BCP response in the absence of the CEO and notify the team.
- ✓ Declaration of a National State of Emergency shall immediately result in the initiation of the BCP response.

The plan shall, once initiated, remain in effect until operations are resumed at the original location, or a replacement location and control is returned to the appropriate functional management.

5.2. External Communications

The Chief Executive Officer or his designate shall be the principal contact for communicating with the Board, Shareholder, customers, employees, and the media (radio, television, and print), regulatory agency, government agencies and other external organizations following a formal disaster declaration.

The Board and the Shareholders shall be kept informed about the enactment of a BCP response and keep them updated of the actions taken by the Company in response to an SBD.

5.3. Emergency Management of Data

All efforts shall be made to recover all the electronic data post SBD. The corporate electronic data shall be managed as per the approved Data Backup, Retention, and Recovery Policy.

However, the primary hard copy books and records shall be physically recovered from the site. If either the hard copies are destroyed or site is inoperable, the business shall continue using the electronic copies of those documents.

5.4. Emergency Management Procedures

The following procedures are to be followed by the designated personnel in the event of an emergency. Where uncertainty exists, actions that would provide maximum protection and personnel safety shall be followed.

Generally, in the event of any situation where access to Office Facility or a Project Site is denied, personnel should report to alternate locations as identified and communicated by the management team.

Since the Plan has been prepared for use during business disruptions including disasters, the plan shall be made available off-location as well. A copy of this Plan shall be available on the Company Website under “Support”.

5.4.1. In the event of a Natural Disaster

In the event of a major catastrophe (flood, earthquake, hurricane, storm, etc.) affecting the Company facility or project sites, immediately follow the procedures in this section.

Form A – Immediate Actions Checklist is a list of the actions that should be taken in response to the initial incident. The checklist is not prescriptive, exclusive or prioritized; any incident will require a dynamic assessment of issues and actions required. Depending on the scale of the incident actions can be delegated to a support team but the Senior Manager is responsible for the actions taken.

Form B – Response Actions Checklist is a list of the actions that should be taken for the company to maintain business critical processes. The checklist is not prescriptive, exclusive or prioritized; any incident will require a dynamic assessment of issues and actions required. Depending on the scale of the incident actions can be delegated to a support team but the Senior Manager is responsible for the actions taken.

Form C – Summary of Essential IT Systems & Records summarizes the basic desktop, software and systems data that need to be restored.

Form D – Staff Details lists all service staff, indicating those business-critical staff that will be required to maintain services in the event of an incident.

Form E – Key Contacts a list of those people that would need to be contacted in the event of an incident. This could be business partners or suppliers.

Form F – Plan Summary provides a single sheet summary of the main business continuity options of the plan.

5.4.2. In the event of a utility or network service outage

In the event of network service outage to the facility, the guidelines and procedures in this section shall be followed.

Procedure to follow:

Step	Action
1	Determine the cause(s) of the outage and timeframe for its recovery.
2	If the cause of the outage is minor, inhouse technician shall immediately attend the problem and restore the supply. In the case of IT related outage, the designated IT technician shall be called.
3	If the cause of the outage is at the source, then notify Bhutan Power Corporation Customer Complaint Office of the utility outage. Name: NA

	<p>Contact: 77330537</p> <p>However, for IT related outage, inform the nearest Tashi Infocom Office.</p> <p>Name: NA</p> <p>Contact: 77670886</p>
4	If outage of the network service shall be greater than half day, arrange an alternate service connection for the critical office works.

5.4.3. In the event of a Pandemic

In the event of a Pandemic (or epidemic), the guidelines and procedures in this section shall be followed.

BHUTAN AUTOMATION shall endeavour to prevent employees from becoming ill and then prevent the illness from spreading. Generally, the following preventive measures shall be taken:

- Education & Training
Employees shall be trained in prevention measures such as sneezing into your sleeve, how to disinfect, and hand washing. Workshops, one-on-one instruction, posters, and website updates shall be used.
- Vaccination
Employees shall be supported to receive the necessary vaccination, depending on availability.
- Disinfection
Arrangements shall be made to disinfect the office spaces and areas that would be prone to infection. Handwashing and/or application of hand sanitizers shall be made mandatory before the entrance to the facility.
Necessary supplies shall be provided.
- Social Distancing
Avoid large gatherings and/or meetings and practise social distancing.
- Work-from-home
Based on the situation, work-from-home arrangement shall be implemented. The HR shall determine which personnel would work from home and access to email and remote access to the Company network resources shall be made available on needs basis.
Further, any employee who is ill shall be asked to stay home.
- Travel

Travel to infected areas shall be prohibited. In fact, travel in general, shall be avoided or discouraged. Any travel out of the station shall require prior approval of the management.

- **Protective Equipment**

The following shall be purchased and distributed as needed to prevent the spread of illness:

- ✓ Gloves
- ✓ Hand sanitizers
- ✓ Sanitizing wipes
- ✓ Masks
- ✓ Gowns

Procedure to follow:

Step	Action
1	The BCP response management team shall coordinate with the designated local or national agencies and manage the situation.
2	All personnel shall cooperate and follow the guidelines in this section, and any passed by national agency, designated local agency, or the BCP response management team.

5.5. Mission Critical Processes

Our Company’s “mission critical processes” are the business aspects that are essential to realize its vision, mission, and objectives/values through delivery of its products and services to its customers. These processes include:

- Order Intake
- Project Execution

During an SBD, all efforts shall be made to ensure that the business processes listed above function normally. However, should the event make it impossible to do so, then the mission critical systems shall be handled as described below.

5.5.1. Order Intake

Sales and Marketing are very important for the Company as they directly lead to Order Intake for the business; without order intake, there will be no Sales.

Currently, our firm conducts its marketing and sales activities, involving our (prospective) customers and ANDRITZ HYDRO sales representatives, via email, Skype, telephone, and in person. During an SBD, we shall continue to perform these tasks through any of these methods that are available and reliable. In addition, as communications permit, we shall inform our customers or other relevant parties about the situation and propose alternative channels of communication, as required.

However, if the SBD also affects the customers and/or other relevant parties, then the business continuity efforts would also depend on how fast and well those parties respond in such situations.

5.5.2. Execution of Projects

Timely and within budget execution of projects are must to achieve the desired Sales and bottom-line. The project execution can be divided into the following main activities:

- Design and Engineering
- Procurement
- Assembly
- Erection and commissioning

Because of an SBD, if execution of projects, as per approved schedules, is not feasible, then the concerned Project Managers shall conduct Project Risk Management and reschedule the works, wherever possible, to minimize the impact on the Sales and overall project execution. This shall be done jointly with the Finance and Controlling Officer.

Since the execution of projects depends much on external parties such as the customers, vendors, etc., it is very crucial to maintain regular communication with those parties. Any delays/impending delays, claims, etc. shall be promptly communicated to the affected parties in line with contractual/legal requirements.

If any project related activity may have consequential effects to the customers, then the concerned Project Manager shall, in consultation with the customer, work towards a mutually agreeable remedy(ies).

5.6. Financial Risk Management

In the event of an SBD with prolonged implications, the financial position of the Company shall be reviewed considering the likely disruption or impending disruption in the business operations, especially the sales from the projects and realization of new order intakes. Should it be determined that the Company may be unable to meet the obligations

due to lack of fund, the Board shall be consulted for seeking necessary financing for the business.

During such periods of low/no funds, the Company shall contact its suppliers, or other agencies including the associated financial institutions and apprise them of the Company's financial status and seek extension, wherever applicable, of time until remedial measures are put in place.

6. Loss of Staff

Guidelines under this section is applicable for situations where there is a sudden temporary or permanent loss of key staff, especially because of an SBD.

In the case of temporary loss of a key staff, that person's roles and responsibilities shall be delegated to another person, who has the necessary knowledge and skills for that particular role, to ensure that the progress of the ongoing critical tasks are not hampered. If such replacement is not available in-house, the required services to maintain continuity of critical works shall be availed from external agencies in the order of preference as listed below.

1. DGPC
2. HIN/HAV
3. Others

In the case of a permanent loss, the same procedure shall be followed. However, in addition, immediate recruitment of a suitable replacement shall also be carried out, if not already covered by HR succession planning.

7. Plan Review and Update

This plan shall be kept current through regular review and updates, as and when required. As such, it shall be reviewed annually and dynamic information such as listing of personnel and contact details shall be updated regularly. In addition, the plan shall be tested through a mock SBD on an annual basis.

Form A – Immediate Action Checklist

Action	Note	Tick Done
If necessary: <ul style="list-style-type: none"> • Follow Evacuation Procedures • Call emergency services given in Annexure I. 		
Maintain a record of all emergency actions taken. Use the log in the Annexure II.		
Assess the situation and level of response required. Can it be dealt with as a day-to-day management issue or does the business continuity plan need to be invoked?		
Communications: Advise staff of the immediate implications for them and service provision Advise staff of the immediate requirements to deal with situation, including temporary accommodation, etc. if required. If necessary, advise key partners/suppliers. If necessary speak to the local press.		
If necessary, allow all staff to contact home to advise they are safe?		
If necessary arrange for the premises to be secured?		
If necessary, use signage to advise the move to a temporary location.		

Name of attending Senior Employee.....

Form B – Response Actions Checklist

Action	Note	Tick Done
Once you are in control of the initial emergency, update staff on a regular basis and keep them fully informed of developments. Make sure members of staff not directly involved in the incident, or those who are absent are also kept advised of developments. Refer to Form D or other staff listings.		
If necessary, form a team of people to assist with the tasks required to restore services. These people should ideally be identified and trained prior to the incident.		
Priority should be given to the needs of the business-critical processes.		
Advise all staff and key contacts (see Form E) of temporary location & any temporary telephone numbers to be used until numbers can be diverted.		
If mobile phones are being used make sure there are sufficient chargers available.		
<p>Temporary Accommodation, especially applicable to the Project Sites</p> <p>Is the available accommodation sufficient for the needs of all the business-critical processes or is additional alternative space required?</p> <p>Do you need to arrange for replacement equipment to be ordered?</p> <p>Do you have access to all essential systems or records?</p>		

Arrange for telephones and post to be re-directed to your new location.		
<p>Working at home and Non-Business Critical Staff</p> <p>If available space is at a premium, consider allowing suitable individuals to work from home.</p> <p>Non-essential staff should be sent home or reallocated to support business critical processes.</p> <p>Make sure those sent home are aware of when to make contact to check on progress or when to return to work.</p>		
Create any new operational procedures and instructions.		
Closely monitor staff issues, morale, overtime, welfare, etc. Do any of the staff need counselling?		
Do you need to complete an Accident Log?		
When ready, inform other organizations, public, suppliers, etc. of resumption of normal service / contact details.		
Cancel or delegate any unnecessary meetings not connected to the incident		
<p>Preservation of records</p> <p>Do not destroy anything. Try to recover as many documents as possible and preserve them somewhere where they can be retrieved easily. This is an ongoing obligation throughout and after the incident.</p>		

<p>Make someone responsible for coordinating and preserving a Master Log.</p> <p>Make a record of all meetings and briefing sessions.</p> <p>Make a hard copy of any relevant computer data and electronic mail.</p>		
<p>Support the post-incident evaluation by direct contribution and by facilitating the involvement of key members of staff. Recovery should always be treated as an opportunity to improve the business.</p>		
<p>At the end of the recovery phase when normality is achieved, inform all interested parties and mark with an occasion.</p>		
<p>Review the Business Continuity Plan to learn from the decisions taken.</p>		

Name of the attending Senior Employee.....

Form C – Essential IT System and Records

Requirement	Within 24 hours	2 – 7 days	8-14 days	Remark
Laptop/Desktop	Yes	-	-	
Office 365	Yes	-	-	
E-mail	Yes	-	-	
Internet Access	Yes	-	-	
EPLAN	-	-	Yes	
TOOLBOX II	-	Yes	-	
250 SCALA	-	Yes	-	
SAP	-	Yes	-	
Printer & Scanner	-	-	-	
Server Projects Directory	-	-	Yes	

Form D – Staff Details

Name	Position/Title	EID	Mobile
Tandin Tshewang	CEO	794	17637073
Santosh Kumar	Chief Technology Officer	3388	77682529
Sacha Singye Wangchuk	Control Engineer	2308	17366782
Dorji Samdrup	Control Engineer	2136	17160706
Sherub Wangdi	Protection Engineer	2489	77608545
Pelden Chodon	Control Engineer	2490	17386472
Kinley Wangdi	Protection Engineer	2491	17336735
Suresh Sunwar	Manufacturing Supervisor	1610	17652772
Phub Gyeltshen	Mechanical Engineer	2362	17341412
Jigme	Electrical Engineer	3367	17786528
Karma Choden	Electrical Engineer	3366	17735208
Chimi Dem	Electrical Engineer	3365	17727451
Phajo Tshering	Technician	924	17707922
Ugyen Dorji	Technician	1657	17788340
Tshering Choki	Finance & Controlling Officer	2158	17431738
Sonam Yangchen	HR & ADM	107	17652554
Dorji Wangdi	Accountant	973	17611881
Norzin Lhamo	Office Assistant	594	17653729
Sonam Tenzin	ICT	3222	17650005
Sonam Choden	Procurement Officer, MMD	869	17560867
Lhab Dorji	Stores, MMD	1213	17832191

Form E – Key Contacts

Name	Position/Title	EID	Mobile
Board			
Dasho Chhewang Rinzin	Managing Director, Druk Green Power Corporation Limited	-	17112020
Dawa Chhoedron	Chief Engineer (TPSD), Department of Hydropower & Power Systems, Ministry of Economic Affairs	-	17974157
Dr. Josef Ullmer	Regional Executive Asia & Oceania PT Andritz Hydro	-	+436646151590
Dr. Thomas Harbort	VP, Automation, Andritz Hydro GmbH, Vienna	-	+43 6646154781
Tandin Tshewang	CEO, BHUTAN AUTOMATION		17637073
Shareholders			
Dechen Wangmo	Director, Corporate Affairs Department, DGPC, Thimphu	-	17618716
Nitin Garg	Function Leader, AT, HIN	-	+919967543330
Technology Partner			
Dr. Thomas Harbort	Vice President, Automation, Andritz Hydro GmbH, Vienna, Austria	-	+436646154781
Vendors			
Andritz Hydro GmbH	Eibesbrunnergasse 20 1120 Vienna, Austria		+43 5080556719
Siemens Limited	RC-IN SI PSS S EXP Plot 6A, Sector 18 Gurgaon 122015, India		+91 1246246437
Schneider Electric Infrastructure	No. 172, Sales Building 600056 Chennai		+91 9560722773
Rittal India Pvt Ltd	B-409, Jeevan Vihar Colony, PNT Square, Bhopal - 462003, M.P.		+91 7554077431

Abhishek Enterprises	1E/17,B.P.N.I.T.Faridabad, India		+91 1294020669
Standard Electric Co.	#1H/16, ARYA SAMAJ Road, NIT. Faridabad - 121 001, India		+91 1292429607
Hydac India Private Limited	245, 2nd floor, DLF tower Shivaji marj, Motinagar, New Delhi, 110015		+91 9560069992
Financial Institutions			
Bank of Bhutan	Thimphu	-	+975 2 334333
Bhutan National Bank	Thimphu	-	+975 2 328577
Bhutan Development Bank	Thimphu	-	+975 2 322579

Form F – Plan Summary

Incident/Risk	Recovery	Evaluation Criteria	Further Action
Loss of accommodation			
Loss of Staff			
Loss IT/Data			
Loss of Telecommunications			
Loss of Hard Data/Paper Records			
Loss of Power Supply			
Loss of Key Supplier			
Severe Weather			
Disruption in Transport			

Annexure I: Emergency Services

Service	Office Number	Mobile Number
Ambulance/BHU	05-290019	77218019
Fire & Rescue	05-290040	17624663
Security	05-290059	17641286
BPC	-	77330537
Tashi Cell	-	77670886

Annexure II: Emergency Operations Log

Incident: BCP response on nationwide lockdown due to COVID-19		Date:	Sheet 1 of 1
Time	Event	Action	